Section 5—Final Environmental Impact Statement

### APPENDIX OO PROJECT LEVEL CONFORMITY DETERMINATION



**Indiana Division** 

June 26, 2013

575 N. Pennsylvania Street, Room 254 Indianapolis, IN 46204 317-226-7475 317-226-7341

> In Reply Refer To: HAD-IN

Mr. Roy Nunnally, Director Asset Management, Program Engineering & Road Inventory Indiana Department of Transportation 100 N. Senate Ave. Indianapolis, Indiana 46204

Dear Mr. Nunnally:

The Federal Highway Administration (FHWA) has completed the review of the enclosed *Air Quality Technical Report PM 2.5 Quantitative Hot-spot analysis for I-69 Evansville to Indianapolis, Indiana: Section 5 Bloomington to Martinsville.* The analysis had demonstrated transportation conformity for the project by determining that future design value concentrations for the 2018 and 2035 analysis year will be lower than the 1997 annual PM2.5 NAAQS of 15.0 µg/m³. As a result, the project does not create a violation of the 1997 annual PM2.5 NAAQS, worsen an existing violation of the NAAQS, or delay timely attainment of the NAAQS and interim milestones, which meets 40 CRF 93.116 and 93.123 and supports the project level conformity.

The Indiana Department of Environmental Management (IDEM) and the United States Environmental Protection Agency (EPA) completed their reviews in accordance with the Indiana Conformity Consultation State Implementation Plan (SIP – see Enclosed USEPA and IDEM corespondence).

The Indianapolis Metropolitan Planning Organization (MPO) adopted the 2035 Long-Range Transportation Plan: 2012 Amendment that includes the approved Section 5 project corridor and corresponding "Air Quality Conformity Determination Report", dated July 23, 2012. The determination report found I-69 Section 5 to conform to the criteria outlined in the conformity rule (see Enclosed FHWA Conformity Finding dated July 23, 2012 and associated USEPA and IDEM correspondence).

The Indianapolis Metropolitan Planning Organization, "Indianapolis Metropolitan Planning Area, Air Quality Conformity Determination Report, 2035 Long-Range Transportation Plan: 2012 Amendment & 2012-2015 Indianapolis Regional Transportation Improvement Program," Indianapolis Metropolitan Planning Organization, Madison County Council of Governments, Indiana Department of Transportation, July 23, 2012, <a href="http://www.indympo.org/Plans/Documents/2035LRTP">http://www.indympo.org/Plans/Documents/2035LRTP</a> 2012Amendment Final.pdf.

Based on the above, we find that I-69 Section 5 conforms to all applicable project level conformity requirements.

If you have any questions regarding this finding, you may contact Larry Heil at (317) 226-7480 or by e-mail larry.heil@dot.gov.

Sincerely,

for: Richard J. Marquis Division Administrator

Enclosures

Cc: Shawn Seals, IDEM

Anthony Maietta, R-5 EPA



#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

#### REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

JUN 26 2013

REPLY TO THE ATTENTION OF:

Robert F. Tally, Jr., P.E. Division Administrator Federal Highway Administration 575 North Pennsylvania Street, Room 254 Indianapolis, Indiana 46204

Dear Mr. Tally:

This letter provides the U.S. Environmental Protection Agency's comments regarding the quantitative fine particulate matter (PM<sub>2.5</sub>) hot spot analysis of the I-69 Section 5 roadway project as submitted by email on June 18, 2013. The submitted documentation includes an analysis to demonstrate that construction and utilization of the I-69 Section 5 project would not create or contribute to a violation of the 1997 annual PM<sub>2.5</sub> national ambient air quality standard (NAAQS). EPA has reviewed the quantitative air quality analysis for the I-69 Section 5 project as submitted on June 18, 2013, and agrees with its finding that the project would not cause or contribute to a violation of the annual PM<sub>2.5</sub> NAAQS.

If you have any questions regarding these comments, please contact Anthony Maietta, of my staff, at (312) 353-8777 or maietta.anthony@epa.gov.

Sincerely,

Pamela Blakley

Chief

Control Strategies Section

Standard bcc's:

official file copy w/attachment(s)

originator's file copy w/attachment(s)

originating organization reading file w/attachment(s)

other bcc's:

ARD:APB:CSS:pm: 7/05/12 DISKETTE/FILE: I-

69\_section\_5\_letter\_to\_FHWA\_on\_quantitative\_hot\_spot\_analysis.doc

#### Hamman, Mary Jo

From: SSEALS@idem.IN.gov

**Sent:** Monday, June 24, 2013 3:00 PM

To: LHEIL@dot.gov

Cc: maietta.anthony@epa.gov

Subject: RE: I-69 Section 5 - Final PM2.5 Hot-Spot Analysis Report with Public Notices

#### Good Afternoon Larry!

We have discussed the PM2.5 Hot-Spot analysis process and report internally. IDEM views the PM2.5 Hot Spot analysis, as well as the associated report, as a planning requirement to demonstrate conformity with a national standard, in this case one set by the U.S. EPA. There is no direct association to an IDEM developed State Implementation Plan or rule. As such, IDEM chooses to defer official determination of this planning requirement to the Federal Highway Administration.

Thanks much!

Shawn

From: <u>LHEIL@dot.gov</u> [mailto:<u>LHEIL@dot.gov</u>]
Sent: Tuesday, June 18, 2013 1:00 PM

To: maietta.anthony@epa.gov; SEALS, SHAWN

Cc: Mcmullen, Kenneth B.; Flum, Sandra; Sperry, Steve; Bales, Ronald; michelle.allen@dot.gov; TMiller@blainc.com

Subject: RE: I-69 Section 5 - Final PM2.5 Hot-Spot Analysis Report with Public Notices

#### Tony and Shawn:

#### Attached is the final report that concludes with the following:

The analysis had demonstrated transportation conformity for the project by determining that future design value concentrations for the 2018 and 2035 analysis year will be lower than the 1997 annual  $PM_{2.5}$  NAAQS of 15.0  $\mu g/m^3$ . As a result, the project does not create a violation of the 1997 annual  $PM_{2.5}$  NAAQS, worsen an existing violation of the NAAQS, or delay timely attainment of the NAAQS and interim milestones, which meets 40 CRF 93.116 and 93.123 and supports the project level conformity determination.

There were no comments. So FHWA would like to issue the PM 2.5 Hot Spot conformity finding as soon as possible so we can forward the FEIS/ROD to our Headquarters for the final legal sufficiency review. Would you be able to get me your letters concurring that it is appropriate for FHWA to issue the above finding based on the attached technical report by close of business this Friday?

I really appreciate all of your help in pulling this together, and I think this will provide a sound example for future such analysis. Thanks for issuing your letters as soon as you can!!

Larry Heil FHWA Indiana Division

From: Bales, Ronald [mailto:rbales@indot.IN.gov]

**Sent:** Tuesday, June 18, 2013 12:41 PM

To: Allen, Michelle (FHWA); Heil, Larry (FHWA)

Cc: Mcmullen, Kenneth B.; Flum, Sandra; Sperry, Steve

Subject: FW: I-69 Section 5 - Final PM2.5 Hot-Spot Analysis Report with Public Notices

Michelle and Larry,

Please find the attached PM Hot-Spot Technical Report provided by Michael Baker/BLA for I-69 Section 5. Thank you.

Ron Bales INDOT-Environmental Services Division 317-234-4916

From: Szekeres, Dan [mailto:dszekeres@mbakercorp.com]

**Sent:** Tuesday, June 18, 2013 12:28 PM

To: Bales, Ronald

Cc: Hamman, Mary Jo; Miller, Tim (TMiller@blainc.com)

Subject: I-69 Section 5 - Final PM2.5 Hot-Spot Analysis Report with Public Notices

Ron,

We have updated the PM2.5 hot-spot analysis report has follows:

- Within Subsection B, included reference to:
  - The ICG Meeting held on May 23, 2013 and that the group reviewed a preliminary version of the Technical Report, offered feedback, and advanced the document for public comment. (inserted language after Exhibit 1)
- Inserted a new Subsection M (moving the Conclusion to Subsection N), entitled Public Involvement.
  - Noted that the Technical Report was advertised in the Martinsville Reporter-Times and the Indianapolis Star on May 30, 2013 and June 4, 2013. A two week comment period was offered, which concluded on June 14, 2013.
  - Referenced the copies of the public notices in a new "Attachment F"
  - Noted that no comments were received during the comment period.

Due to small print in the public notices, we had to preserve a high image quality which increased the WORD document size. As a result, the WORD file is available for download from our FTP site. The PDF version is attached to this email.

Daniel Szekeres Technical Manager Michael Baker Jr., Inc. 4431 North Front Street Harrisburg, PA 17110-1709 717.221.2019 (ofc) 717.579.2501 (cell) www.mbakercorp.com

#### Baker

A Please consider the environment before printing this email.



#### **Interagency Conference Call Minutes**

Date: May 23, 2013

Subject: PM<sub>2.5</sub> Hotspot Analysis: Interagency Conference Call on Technical Report

#### Attendees:

Organization	Participant	Organization	Participant
FHWA	Larry Heil	Indy MPO	Andrew Swenson
	Michele Allen		Catherine Kostyn
	Joyce Newland		·
	•	IDEM	Brian Callahan
INDOT	Ron Bales		
	Greg Katter	Baker	Dan Szekeres
			Ying-Tzu Chung
EPA	Tony Maietta		
	-	BLA	Tim Miller

#### **Meeting Minutes:**

- Larry Heil opened the conference call with an overview of the status of the I69 Section 5 PM<sub>2.5</sub> air quality hot-spot analysis. The hot-spot analysis technical report was provided as an attachment to the meeting appointment. The goal of the meeting was to identify if there were any final comments on the report text and/or conclusions.
- Larry provided a review of the current status and schedule:
  - o Finalize report by end of May 23<sup>rd</sup>.
  - o Release public notice on May 24<sup>th</sup> for a 2-week comment period ending June 7<sup>th</sup>.
  - o FHWA will review the summary disposition of comments and ask INDOT to forward the final document to the ICG the week of June 10, with a request for ICG formal consultation comments within a week if possible.
  - $\circ$  Issue the PM<sub>2.5</sub> hot-spot conformity determination letter by the end of the week of June 17.
- Tony Maietta was in acceptance of the document as long as the comments from EPA OTAQ were addressed (as provided in an email from Meg Patulski on 5/22/13). The document provided for this ICG meeting addressed the comments from EPA OTAQ.



- IDEM (Brian Callahan) provided two comments to be addressed before the document goes to public comment:
  - o Footnote the table documenting the monitor locations that monitor #2 and #3 are "not appropriate for annual NAAQS comparison".
  - o Throughout the document, add "1997" before references to the PM<sub>2.5</sub> annual standard.

#### **Action Items:**

- Baker will update the technical report to include the comments from IDEM.
- Baker/BLA will finalize the public notice.

#### Hamman, Mary Jo

From: LHEIL@dot.gov

**Sent:** Tuesday, April 30, 2013 9:31 AM

**To:** SSEALS@idem.IN.gov; maietta.anthony@epa.gov; michelle.allen@dot.gov;

rbales@indot.IN.gov; sbelch@indygov.org; aswenson@indygov.org;

RNUNNALLY@indot.IN.gov

Cc: Szekeres, Dan; Hamman, Mary Jo; berry.laura@epa.gov; patulski.meg@epa.gov;

Karen.Perritt@dot.gov; TMiller@blainc.com; Bizot.David@epa.gov

**Subject:** I-69 Section 5 PM2.5 Hot Spot Analysis ICG Minutes

Attachments: Final I69 HotSpot - Meeting Minutes 041913 - Revised Per 042913 Followup....pdf; Final I69

HotSpot - Handouts ICG 041913 - Revised Per 042913 Followup Mtg.pdf; Final I69 HotSpot -

Data Checklist ICG 041913 - Revised Per 042913 Followup Mtg.xlsx

#### Interagency Consultation Group:

Attached are the Minutes from our April 19, 2013 ICG Conference Call. We had a follow-up meeting with IDEM yesterday and determined the most recent meteorology data that is representative of our project is area is from the National Weather Service monitoring site at the Indianapolis International Airport (see <a href="http://www.in.gov/idem/airquality/2376.htm">http://www.in.gov/idem/airquality/2376.htm</a>). This data is in a format that can readily be used by AERMOD, and so we concluded it would be best to use AERMOD at this time.

We expect to distribute a draft report for your review and comment the week of May 6. 2013. Timely feedback would be greatly appreciated as we would like to discuss the resolution of any comments at our ICG Meeting schedule for May 23, so it can be released for the 15-day public comment period. OTAQ indicated they may be able to provide a suggested documentation format per their ongoing work in developing a template. Any such guidance would be much appreciated.

#### Larry Heil

**FHWA Indiana Division** 

From: Patulski, Meg [mailto:patulski.meg@epa.gov]

**Sent:** Thursday, April 25, 2013 4:24 PM

To: Heil, Larry (FHWA); <a href="mailto:SSEALS@idem.IN.gov">SSEALS@idem.IN.gov</a>; Maietta, Anthony; Allen, Michelle (FHWA); <a href="mailto:rbales@indot.IN.gov">rbales@indot.IN.gov</a>; Maietta, Anthony; Allen, Michelle (FHWA); <a href="mailto:rbales@indot.IN.gov">rbales@indot.IN.gov</a>; Maietta, Anthony; Allen, Michelle (FHWA); <a href="mailto:rbales@indot.IN.gov">rbales@indot.IN.gov</a>; Maietta, Anthony; Allen, Michelle (FHWA); <a href="mailto:rbales@indot.IN.gov">rbales@indot.IN.gov</a>;

TMiller@blainc.com; Bizot, David; sbelch@indygov.org; aswenson@indygov.org

Cc: RNUNNALLY@indot.IN.gov; Perritt, Karen (FHWA); dszekeres@mbakercorp.com; MHamman@mbakercorp.com;

<u>Stephanie.Belch@indy.gov</u>; <u>Andrew.Swenson@indy.gov</u>; Berry, Laura **Subject:** Additional information for I-69 Section 5 PM2.5 Hot Spot Analysis

Tony and I have talked further about the met data issues that were discussed on last Friday's conference call for the I-69, Section 5 PM hot-spot analysis. We wanted to share new information that could help inform the analysis.

- 1. We wanted to confirm our support for the MOVES input approach for temperature and humidity. The 4/19/13 draft checklist described these inputs as: "Monthly average meteorology data for each hour by month. Use same inputs as developed for PM2.5 SIP (Marion County inputs) to calculate average temperatures/humidity for each representative time period." We support this approach for the PM hot-spot analysis.
- 2. We also support the approach for the CAL3QHCR input data (i.e., using "Meteorology inputs from EPA's SCRAM website") if the met data is representative of the project area. On the Friday call, I raised concerns regarding the age of the data on the SCRAM site, but I now believe it is reasonable and consistent with EPA's Guidance if the data is representative.

Section 7.5.1 of EPA's Quantitative PM Hot-spot Guidance states that "One of the key factors in producing credible results in a PM hot-spot analysis is the use of meteorological data that is as representative as possible of the project area." The selection of a representative met station is something that is decided through the consultation process, and the guidance describes several factors to consider in deciding whether met data for air quality modeling is representative, e.g., "The proximity of the project area to the meteorological monitoring site" and "The similarity of the project area to the meteorological monitoring site in surface characteristics." The guidance states that "five consecutive years of the most recent representative meteorological data should be used," but also states that EPA's SCRAM site contains additional information, including "archived meteorological data (which may be suitable for some analyses)."

I hope these clarifications are helpful in providing certainty in developing your project analysis. I will return to the office on Tuesday, and can answer any additional questions if needed.

Meg Patulski, EPA-OTAQ



#### **Interagency Conference Call Minutes**

Date: April 19, 2013

(Includes Revisions based on 4-29-13 Meeting/Call with IDEM/FHWA/INDOT/Consultants)

Subject: I69 Section 5 PM 2.5 Hotspot Analysis: Interagency Conference Call on Methodology

#### Attendees:

Organization	Participant	Organization	Participant
FHWA	Larry Heil	Indy MPO	Andrew Swenson
	Michele Allen		Stephanie Belch
	Karen Perritt		-
		IDEM	Gale Ferris
INDOT	Ron Bales		
	Greg Katter	Baker	Mary Jo Hamman
			Dan Szekeres
EPA	Meg Patulski		Ying-Tzu Chung
	David Bizot		Rob D'Abadie
	Tony Maietta		
		BLA	Tim Miller

#### **Meeting Minutes:**

#### **Project Overview:**

Larry Heil opened the conference call with an overview of the I69 Section 5 project. This section of the project does not include additional travel lanes and is focused on upgrading the roadway to a limited-access facility with interchanges. Section 4 is under construction and Section 6 is in the MPO conformity analysis for construction during the 2016-2035 time period after Section 5 has opened to traffic.

The PDF handout file (attached to minutes) was reviewed to identify key methodology and approach issues requiring interagency concurrence (as indicated on page 1 of the handout). These topics are addressed in the following sections.

#### Need for PM2.5 Hotspot Analysis (Handout Page 2):

Larry Heil indicated that FHWA does not consider this project as a Project of Air Quality Concern. Forecasts indicate small increases in trucks (+351 per day) in 2018. Larger truck increases are forecasted in 2035 but emission factors are expected to be much lower than current values.



Meg Patulski indicated that OTAQ believes this project is a Project of Air Quality Concern. Tony Maietta of EPA's regional office deferred to OTAQ in providing the recommendation.

The ICG group concurred that a project level hotspot analysis would be conducted for Section 5 despite not having a unanimous decision on it being a Project of Air Quality Concern.

#### Analysis Approach (Handout Page 3-4):

Larry Heil provided an overview of the analysis approach. The approach will utilize EPA's guidance (EPA-420-B-10-040) and will initially focus on the Build condition of the preferred alternative. Design values will be calculated for each analysis year and compared to the NAAQS. The ICG concurred with the project approach.

#### Analysis Study Area (Handout Page 5):

Larry Heil provided a description of the analysis study area that includes the interchange with SR 39. This study area falls within Section 6 not Section 5. Meg Patulski of OTAQ agreed with the selection of the project location and indicated that the intent of the guidance was followed. The ICG concurred with the analysis study area.

#### Analysis Years (Handout Page 6):

Larry Heil indicated the analysis years based on the available modeling. The years include the opening year (2018) and a horizon year (2035). Despite having much lower trucks, the opening year is estimated to have higher emissions based on an initial analysis of emission factors from EPA's MOVES model conducted by Baker. Due to the difficulties in selecting only one of these years, FHWA has recommended that both analysis years be included in the analysis. The ICG concurred with this decision.

#### *Type of PM for Analysis (Handout Page 7):*

Dan Szekeres of Baker provided an overview of what pollutants will be included in the hotspot analysis. Analyses will include directly emitted PM2.5 with a focus on only the freeway running emissions. Start and evaporative emissions are not anticipated to be a concern based on the pollutants and study area characteristics.

Based on previous calls, Mr. Szekeres indicated that there are no major point sources near the project area that require special consideration. In addition, construction emissions (considered temporary) and road dust will not be considered in the analysis. No intermodal terminals are identified to be related or tied to this project. The ICG concurred with these decisions.

#### Emission Models (Handout Page 8):

Revisions to emission models were discussed during the 4-29-13 followup meeting/call. It was agreed to use MOVES2010B and the latest version of AERMOD. AERMOD was chosen since more recent meteorology data is available for that model. AERMOD will be run by treating the roadway as a "volume" source. The ICG concurred with this decision.



#### Background Concentrations (Handout Pages 9-10):

Dan Szekeres reviewed methods to develop a background concentration for the hotspot analysis. The value (10.4) was calculated based on the latest 3-years of data available from the closest monitor location in Bloomington. FHWA and OTAQ accept this approach. The ICG concurred with the use of the 10.4 background concentration.

#### *Traffic Data for MOVES (Handout Page 11):*

Dan Szekeres reviewed available traffic data from the corridor model. Since a 2018 model run has not been produced, traffic volumes will be interpolated from the 2010 and 2035 model runs. 2018 traffic speed assumptions will be the same as 2035 since the modeling does not indicate any congestion in the study area. The ICG concurred with these decisions.

#### Receptor Locations (Handout Page 12):

Dan Szekeres provide some considerations that will be addressed in selecting receptor locations. This includes extending the analysis study area just north of the SR39 interchange so a receptor can be placed in the vicinity of the residential development and school near SR37. Meg Patulski believes that approach would be appropriate. The ICG concurred with these decisions.

#### Other Input Parameters (Handout Page 13 and EXCEL checklist file):

Dan Szekeres reviewed the EXCEL checklist file documenting key input assumptions for the MOVES and AERMOD models. MOVES inputs are based on data received from the Indianapolis MPO consistent with that used for the development of the PM2.5 SIP. Larry Heil indicated that such consistency is important. OTAQ was in agreement with these assumptions. Andy Swenson indicated that additional information on roadway grade can be obtained from the IMAGIS consortium (digital elevation modeling). He will provide Baker with a contact. Meg Patulski was in acceptance of using recommended parameters from the 3-day EPA/FHWA hotspot training course. Per the 4-29-13 followup meeting, the use of AERMOD with IDEM's latest meteorology was determined to be the best approach for dispersion modeling at this time. The ICG has concurred with this approach.

#### Documentation (Handout Page 14):

Dan Szekeres provided key sources that would be used to develop the documentation shell. The primary source would include the hotspot technical report for the Elgin O'Hare-West Bypass. That document would be updated based on information provided in the templates developed for NCHRP 25-25 Task 71. A document shell will be provided to the ICG before the analysis is complete.

Meg Patulski indicated that EPA is currently reviewing the NCHRP 25-25 Task 71 templates and their use for PM2.5 hotspot analyses. OTAQ would be willing to share a pre-release version to assist with documentation preparation. Karen Perritt and OTAQ stressed use of EPA guidance Section 3.10 in developing the technical report.



#### Schedule (Handout Page 15):

Larry Heil reviewed the project schedule. A draft document shell would be completed for May 6 with the analysis results incorporated into that document by May 20. EPA indicated that they were on furlough on May 24<sup>th</sup> so the next ICG meeting would be moved to May 23.

#### **Action Items:**

- Baker will follow-up with the Indianapolis MPO and Roberto Miquel (CDM Smith) in an effort to obtain MOVES temperature data for all four seasons. Current data from the MPO only contains summer and annual average values.
- Baker will obtain digital elevations from IMAGIS. The Indianapolis MPO will provide the contacts for obtaining that information.
- OTAQ will provide Baker with any suggested documentation formats per their ongoing work in developing a template.

### Agenda for ICG Review

April 19, 2013 (Updated Per 4-29-13 Meeting/Call)

- 1. Need for PM Hot-spot Analysis
- 2. Analysis Approach
- 3. Study Area
- 4. Analysis Years
- 5. Type of PM Emissions to be Analyzed
- 6. Emission Models
- 7. Monitor Locations Background Concentration
- 8. Traffic Data for MOVES
- 9. Receptor Locations
- 10. Other Input Parameters
- 11. Documentation
- 12. Schedule

## Need for Hotspot Analysis

#### Truck and AADT

	2035 NO BUILD ASSUMES SECTION 5 IS NOT BUILT BUT SECTION 6 IS BUILT - TRUCK VOLUMES											
Cogmont	2018 No	2018 No Build Truck Volumes			2018 Build Truck Volume			<b>Build Truck</b>	<b>Volumes</b>	2035 Build Truck Volumes		
Segment	AM	PM	Daily	AM	PM	Daily	AM	PM	Daily	AM	PM	Daily
SR 37 / I-69												
South of Liberty Church Road	200	113	3,417	209	122	3,576	568	197	11,034	656	247	12,726
Between Liberty Church Road and SR 39	210	105	3,571	220	113	3,714	569	199	11,060	658	248	12,785
North of SR 39	170	95	3,318	189	105	3,669	436	157	8,767	608	216	12,005
Liberty Church Road												
West of I-69	1	1	9	1	1	18	-	-	10	3	2	74
East of I-69	2	2	36	3	3	47	2	1	40	5	3	90
SR 39												
North of SR 37 / I-69	70	36	1,095	49	32	804	141	49	2,391	55	36	857

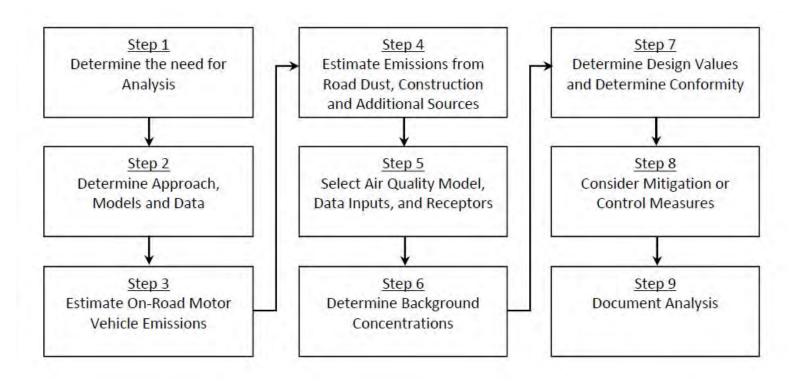
2035 NO BUILD ASSUMES SECTION 5 IS NOT BUILT BUT SECTION 6 IS BUILT - AADT												
Segment	2018	No Build A	AADT	20:	18 Build AA	DT	2035 No Build AADT		ADT	2035 Build AADT		
Segment	AM	PM	Daily	AM	PM	Daily	AM	PM	Daily	AM	PM	Daily
SR 37 / I-69												
South of Liberty Church Road	2,200	2,503	29,490	2,444	2,822	32,648	3,294	3,559	42,926	4,580	5,179	58,890
Between Liberty Church Road and SR 39	2,379	2,597	29,146	2,648	2,934	32,331	3,399	3,702	44,550	4,752	5,422	61,588
North of SR 39	1,894	2,245	23,252	2,178	2,621	26,810	2,574	2,827	34,350	3,984	4,589	53,104
Liberty Church Road												
West of I-69	42	50	300	84	101	1,311	24	36	402	206	319	3,199
East of I-69	56	98	1,148	80	147	1,724	82	106	1,110	250	374	3,957
SR 39												
North of SR 37 / I-69	732	846	9,579	710	830	8,811	1,053	1,210	15,320	957	1,140	11,799

**Decision** 

While a recommendation has not been made that the project is a "Project of Air Quality Concern," INDOT and FHWA have determined that it is in the best interest of the project to conduct the analysis without a final determination being made.

### Analysis Approach

A PM2.5 quantitative hot-spot analysis will be conducted according to the guidelines and methods provided in EPA's guidance document, *Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas* (EPA-420-B-10-040), and materials from EPA's 3-day training course on the topic. Key steps in the analysis process are:



### Analysis Approach

#### Model **Build** Scenario for Each Analysis Year

- Refined Preferred Alternative 8
- Account for background concentrations

#### Calculate **Build** Design Value

- Compare to NAAQS
- Show project meets hotspot requirement

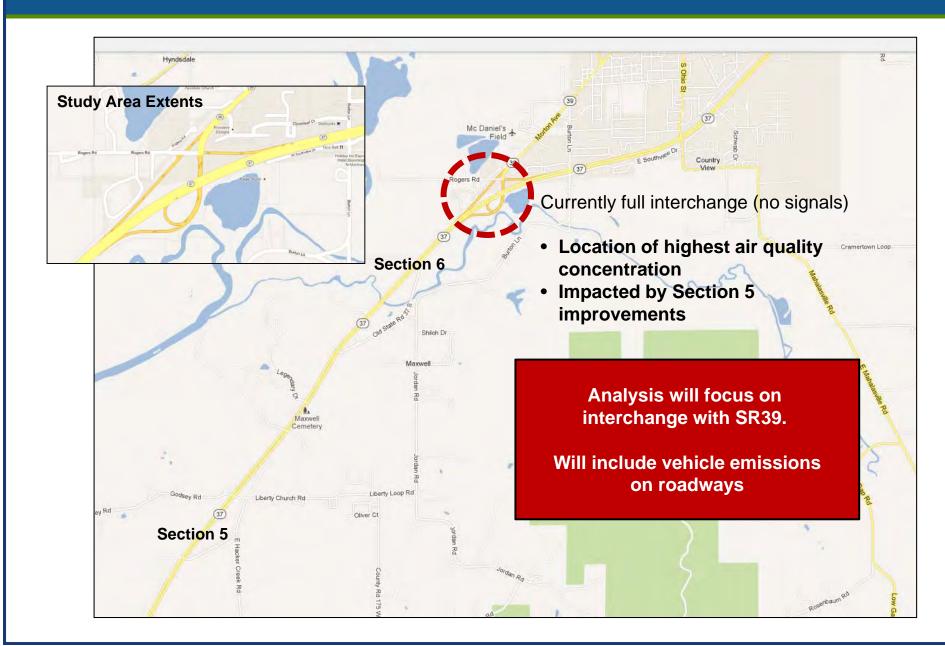
# lf

#### Model No-Build Scenario for Each Analysis Year

- Compare to Build Scenario
- Show project meets requirements If Build less than or equal to NoBuild

Conformity **Cannot Be Demonstrated** Then:

## Analysis Study Area



Below FHWA Example of Project of AQ Concern (e.g. <125,000AADT and <10,000 Truck AADT)

From BLA Traffic Model and Interpolation

Roadway	2	2018 Auto Volume	2018 True Volume	2035 Auto Volume	2035 Truck Volume
SR 37*		28,617	3,714	48,803	12,785
SR 39		8,007	804	10,942	857

<sup>\*</sup> Between Liberty Church Road and SR 39 (Highest Truck Volumes)



From EPA MOVES Emission Model (Default Data for Morgan County)

Vehicle Group	2018 Emission Factor (g/mi)	2035 Emission Factor (g/mi)
Auto	0.012	0.010
Truck	0.157	0.036



Recommendation: Analyze both 2018 & 2035

2018 Emission	2035 Emission
Quantity Estimate (g)	Quantity Estimate (g)
575	533

<sup>\*</sup> Assumes 0.5 mi length for all segments

## Type of PM for Analysis

A portion of Section 5 (Morgan County) is located in an area designated as nonattainment for the <u>annual</u> 1997 PM2.5 NAAQS.

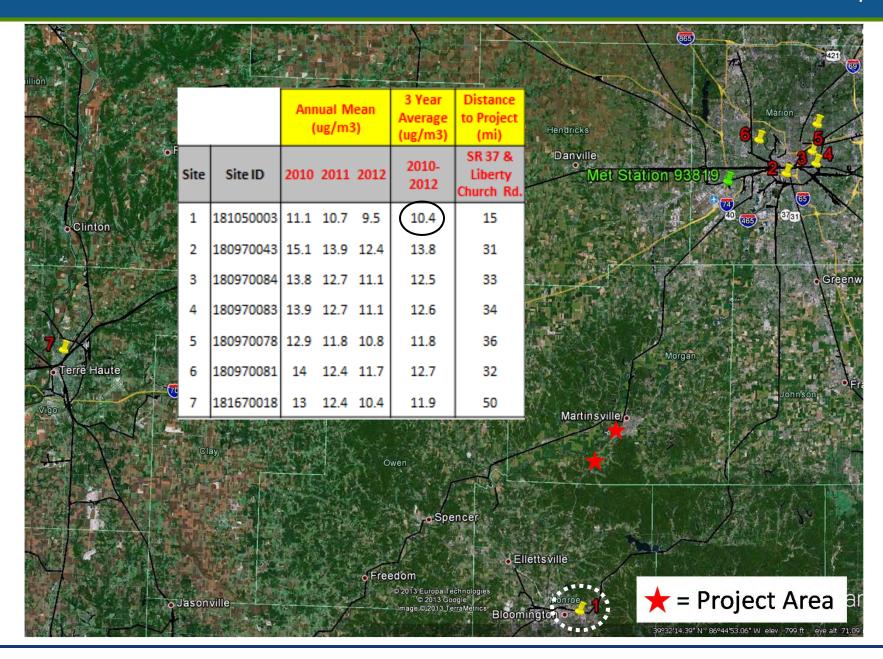
Source	Include in Hotspot Analysis?	Reasons for Decision
Directly Emitted PM2.5 (Running/Crankcase Exhaust, Brakewear, Tirewear)	Yes	Vehicle operations on freeways and on interchange
Other PM2.5 Precursors	No	Start exhaust is unlikely to be a primary contributor at the interchange. Precursors are not required to be analyzed.
Construction Emissions	No	Construction of Section 5 expected to be < 5 years; No other compelling reasons to include
Other Non-Road Sources	No	No new project-related service to rail intermodal facility; No major point sources of emissions

## **Emission Models**

Model	Use for Hotspot Analysis	Used For:	Reasons for Use
EPA MOVES2010B	Yes	Vehicle emission factors by speed; Run in project mode	Required
CAL3QHCR	No	Air quality dispersion model;	Not Used
AERMOD	Yes	Calculates future design values with project impacts	More recent meteorology data available from IDEM for AERMOD: http://www.in.gov/idem/airquality/2376.htm

## I69 Section 5 PM2.5 Hot-spot Analysis ICG Review of Assumptions

### **Monitor Locations**



### **Background Concentration**

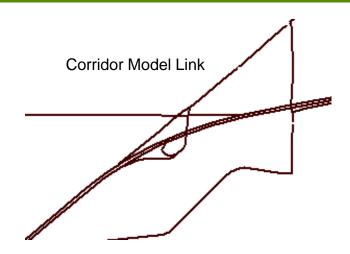
#### **Considerations from EPA Guidance:**

- Monitors with similar characteristics between the monitor location and project area
- Distance of monitor from project area
- Wind patterns between monitor from project area
- Closest monitor is one in Bloomington
- ➤ Prevailing winds travel generally from the southwest during most of the year. (<a href="http://iclimate.org/narrative.asp">http://iclimate.org/narrative.asp</a>)
- > Average monitor reading over last 3 years = **10.4**
- > IDEM considers this to be near background concentrations

### Traffic Data for MOVES

#### 2035 Analysis Year

- Extract from 2035 Travel Model Links:
  - Volumes (AM, PM, Daily Average)
  - Travel Time / Speeds (AM, PM, Daily Average)
- Create MOVES data inputs for 4 time periods (Average Speed Method in EPA Tech Guidance)



**NOTE:** Model does not show congestion on study area links during peak periods

#### 2018 Analysis Year

- Use Interpolated Link Volumes from BLA:
  - Use 2035 peak hour percentages to divide volumes to each time period
  - Assume free-flow speed from 2035 model for all time periods (e.g. no significant congestion)
- Create MOVES data inputs for 4 time periods (Average Speed Method in EPA Tech Guidance)

### Receptor Locations (Not Finalized)

**SR 39** 



Identify sensitive populations (schools, hospitals, senior facilities)

### Other Input Parameters

#### > See attached EXCEL Checklist

- MOVES Input Data
  - Provided by Indianapolis MPO
  - Consistent with recent PM2.5 SIP
- AERMOD Input Data
  - Meteorology inputs from IDEM website (<a href="http://www.in.gov/idem/airquality/2376.htm">http://www.in.gov/idem/airquality/2376.htm</a>)
  - Recommendations from FHWA hot-spot training documents
  - Treat highway as a "Volume" source per EPA guidance methods

### **Documentation**

- > Develop Air Quality Technical Report
  - Use Elgin O'Hare-West Bypass project as example
  - Reference NCHRP 25-25 / Task 71 Templates for Project-Level Analyses
  - Provide document shell before analysis complete to ensure sufficient review and to allow for addressing comments

### Schedule/Public Involvement

Item	Date
Initiate Hot-spot Analysis	4/22/2013
Draft Document Shell	5/6/2013
Analysis Completion	5/20/2013
Draft Document for Review	5/24/2013 (ICG Meeting)
Public Comment Period	5/28/2013 – 6/12/13  15 day period

### DRAFT Traffic / Air Quality Data Checklist (4/29/2013) MOVES Project-Level Emission Modeling for I-69 Project (Morgan County, IN)

Data Item	Inputs Needed/Assumptions	Data Status		
MOVES RunSpec				
Scale/Calulation Type	Project Scale Emission Rates Run			
Analysis County	Morgan County (FIPS: 18109)			
Analysis Years	2018 & 2035			
Representative Months	January (Jan-Mar), April (Apr-Jun), July (Jul-Sep), October(Oct-Dec)			
Representative Hours	6 am (6am-9am), 12 pm (9am-4pm), 6 pm(4pm-7pm), 12 am(7pm-6am)			
Number of Runs	4 hours of a weekday x 4 quarters = 16 runs per scenario			
Pollutants and Processes	Primary Exhuast PM2.5 - Total: Running Exhaust & Crankcase Running Exhaust Primary PM2.5 - Brakewear Particulate Primary PM2.5 - Tirewear Particulate			
Stage II Refueling Emissions	Not Applicable			
Fuel Types	Gasoline, Diesel, CNG			
Traffic Data				
Highway Network	Requried traffic volume, speed, distance and facility type by time period (AM/PM peak and daily average) for each link. Average speed will be estimated using traffic volume and traffic delay from model network.	- Traffic network databases received from Brian Curtis on 4/2/2013 - Network field definition file received from Brian Curtis on 4/8/2013		
MOVES Inputs				
Fuel Supply	Use MOVES defaults (Marion County's fuel inputs for regional analysis as provided by Indianapolis MPO are			
Fuel Formulation	based on MOVES defaults)	- MOVES inputs for Marion County received from Indianapolis MPO		
I/M Parameters	Not Applicable	(Catherine Kostyn) on 4/8/2013		
Vehicle Age Distribution	Use same inputs as developed for PM2.5 SIP (Marion County inputs)	-Seasonal MOVES meteorology inputs for Marion County received from CDM Smith (Roberto Miquel) on 4/22/2013		
Temperatures/Humidity	Average meteorology data for each hour for each representative time period. Use same inputs as developed for recent PM2.5 SIP/regional analysis.			
Links	Average speed, traffic volume, distance and road type (facility type) for each link. Examine traffic network to define representative links based on geographic and vehicle activity parameters (e.g. traffic volume, congested speed, acceleration, deceleration, cruise, idle, etc.)  Grade: To be determined	To be calculated from highway network databases.     Elevation data (DEMs) received from IMAGIS (Jim Stout) on 4/22/2013		
Link Source Type	Distribution of source type population for each link. Use traffic volumes from model network and regional fleet distribution (based on MOVES source type population input for reginal analysis) to calculate link source type distribution.	MOVES data received from Indianapolis MPO (Catherine Kostyn) on 4/8/2013		
Link Drive Schedule	Not Applicable			
Operating Mode Distribution	Not Applicable			
Off-Network Link	Not Applicable			
Control Programs				
Early NLEV / CALLEVII	Not Applicable			
Stage II Refueling Parameters	Not Applicable			

### Draft Air Quality Model Data Checklist (4/29/2013) AERMOD Dispersion Modeling for I-69 Project (Morgan County, IN)

Data Item	Inputs Needed/Assumptions	Data Source
Analysis		
Air Quality Dispersion Model	AERMOD (Dated 12345)	Downloaded from EPA's SCRAM website (http://www.epa.gov/ttn/scram/dispersion_prefrec.htm#aermod)
Key AERMOD Inputs		
Meteorology Data (*.sfc & *.pfl)	Use 5 most recent available years (2006-2010) of off-site meteorological data available from IDEM website: - Surface meteorological data is from the National Weather Service Site for Indianapolis, IN - Upper air meteorological data is from Lincoln, IL station.	Downloaded from IDEM website (http://www.in.gov/idem/airquality/2376.htm)
Emission Source Type	Model roadway links as "Volume" sources	
Receptors	Receptor placements will consider sensitive populations and to be determined per PM Hot-Spot Guidance.	



Indiana Division

575 North Pennsylvania Street, Room 254 Indianapolis, Indiana 46204

July 23, 2012

HDA-IN

Ms. Audra Blasdel, Director LPA/MPO and Grant Administration Indiana Department of Transportation 100 N. Senate Avenue, Room IGC-N 755 Indianapolis, Indiana 46204-2217

Dear Ms. Blasdel:

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have completed our review of the June 6, 2012 amendment to the 2035 Transportation Plan and FY 2012-2015 Transportation Improvement Program (TIP) for Indianapolis, Indiana. The conformity documentation prepared by the Indianapolis Metropolitan Planning Organization (IMPO) includes analyses to demonstrate conformity for 8-hour ozone and annual fine particulate matter. Enclosed are the USEPA and IDEM comment letters noting that all applicable Clean Air Act conformity requirements have been addressed.

Therefore, FHWA and FTA find the IMPO 2035 Transportation Plan updates and FY 2012-2015 TIP as amended demonstrate conformity for 8-hour ozone and the annual standard for PM 2.5 as required by the conformity rule. There were no amendments to the Madison County Council of Government (MCCOG) 2035 Transportation Plan and FY 2012-2015 TIP, nonetheless the analysis also serves to demonstrate the existing MCCOG documents conform as well.

If you have any questions, please contact Larry Heil of this office at (317) 226-7480 or by e-mail at larry.heil@dot.gov.

Sincerely,

for: Robert F. Tally, Jr., P.E.

Division Administrator

**Enclosures** 



cc:

Pat Morris, R-5 EPA Shawn Seals, IDEM Reginald Arkell, R-5 FTA Randy Walter, INDOT Stephanie Belch, IMPO Steve Cunningham, IMPO Jerry Bridges, MCCOG Reginald Arkell, R-5 FTA Laurence Brown, INDOT



#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

#### JUL 1 0 2012

Robert F. Tally, Jr., P.E. Division Administrator Federal Highway Administration 575 North Pennsylvania Street, Room 254 Indianapolis, Indiana 46204

Dear Mr. Tally:

This letter provides the U.S. Environmental Protection Agency's comments regarding the 2012 amendment to the 2035 Transportation Plan and FY 2012-2015 Transportation Improvement Program (TIP) for Indianapolis, Indiana. The conformity documentation prepared by the Indianapolis Metropolitan Planning Organization (IMPO) includes analyses to demonstrate conformity for 8-hour ozone and annual fine particulate matter (PM<sub>2.5</sub>).

We have reviewed the conformity determination documentation related to the annual PM<sub>2.5</sub> standard. Motor vehicle emissions (MOVES) budgets are not yet approved for PM<sub>2.5</sub> so the conformity rule requires a baseline test for annual PM<sub>2.5</sub> and oxides of nitrogen as a precursor of PM<sub>2.5</sub>. The baseline test is demonstrated in the technical addendum to the conformity determination report. The technical addendum is posted on the IMPO website for public review and comment until July 20, 2012. The technical addendum demonstrates that the analyses of yearly emissions are below both the 2002 and 2008 baseline emissions for both PM<sub>2.5</sub> and NO<sub>x</sub> as a precursor of PM<sub>2.5</sub>. If no adverse public comments are received, EPA will accept the technical addendum as complete, and the amended 2035 Transportation Plan and FY 2012-2015 TIP for the IMPO can be found to demonstrate conformity for the annual PM<sub>2.5</sub> standard as required by the conformity rule.

We have reviewed the conformity determination documentation related to the 8-hour ozone standard. The conformity analyses demonstrate conformity to the new MOVES budgets which are being approved as part of the 1997 8-hour ozone maintenance plan, (see 77 FR 37328). These budgets will be effective on July 23, 2012. When the new MOVES budgets are effective, the amended 2035 Transportation Plan and FY 2012-2015 TIP for the IMPO can be found to demonstrate conformity for the 1997 8-hour ozone maintenance plan, as required by the conformity rule.

If you have any questions regarding these comments, please contact Patricia Morris, of my staff, at (312) 353-8656.

Sincerely,

Pamela Blakley Chief

Control Strategies Section



#### INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr. Governor

Thomas W. Easterly Commissioner

100 North Senate Avenue Indianapolis, Indiana 46204 (317) 232-8603 Toll Free (800) 451-6027 www.idem.IN.gov

July 13, 2012

Robert F. Tally, Jr., Division Administrator Federal Highway Administration 575 North Pennsylvania Street, Room 254 Indianapolis, Indiana 46204

Mr. Tally:

This letter provides the Indiana Department of Environmental Management's (IDEM) comments regarding the air quality requirements associated with the Indianapolis Metropolitan Planning Organization (Indy MPO) air quality conformity demonstration for the greater Indianapolis, Indiana area. The greater Indianapolis area is currently designated as an 8-hour ozone maintenance area and has approved motor vehicle emission budgets for volatile organic compounds and nitrogen oxides. In addition, the Indianapolis area is currently designated nonattainment for the annual PM 2.5 standard. However, effective May 21, 2010, U.S. EPA found the PM 2.5 motor vehicle emission budgets included in the most recent State Implementation Plan submittal to be adequate for transportation conformity purposes.

IDEM has reviewed the Amendment to the Indy MPO 2035 Transportation Plan and the Fiscal Year 2012-2015 Transportation Improvement Program and the associated air quality documentation prepared by the Indy MPO. This documentation indicates that the projected emissions associated with the transportation sector of this area appears to conform with the motor vehicle emission budgets as detailed in the 8-hour ozone redesignation request and maintenance plan that was approved by U.S. EPA and effective on October 19, 2007. Furthermore the projected emissions associated with the transportation sector of this area appears to conform with the motor vehicle emission budgets included in the most recent PM 2.5 SIP submittal that was found adequate and effective on May 21, 2010.

Based on the information provided within this documentation, IDEM has no formal comments at this time. IDEM defers to the Federal Highway Administration for official determination of conformity concerning the greater Indianapolis, Indiana area and the associated documentation.

If you have questions or comments or need additional information please contact me at 800-451-6027 ext. 3-0425 or SSeals@idem.IN.gov.

Regards,

Shawn M. Seals

Senior Environmental Manager

Indiana Department of Environmental Management

# Air Quality Technical Report

## PM<sub>2.5</sub> Quantitative Hot-spot Analysis

I-69 Evansville to Indianapolis, Indiana: Section 5 Bloomington to Martinsville

#### A. Introduction

This technical report outlines the methodology, inputs and results of the PM<sub>2.5</sub> quantitative hot-spot analysis presented in the I-69 Evansville to Indianapolis, Indiana, Section 5, Bloomington to Martinsville, Indiana Tier 2 Final Environmental Impact Statement (referred herein as I-69 Section 5). A portion of the project (Morgan County) is within the Central Indiana nonattainment area for the 1997 annual fine particles (PM<sub>2.5</sub>) National Ambient Air Quality Standard (NAAQS).

On March 10, 2006, the U.S. Environmental Protection Agency (EPA) published a Final Rule (71 FR 12468) that establishes transportation conformity criteria and procedures for determining which transportation projects must be analyzed for local air quality impacts in PM<sub>2.5</sub> and PM<sub>10</sub> nonattainment and maintenance areas. A quantitative PM hot-spot analysis using EPA's MOVES emission model is required for those projects that are identified as projects of local air quality concern. Quantitative PM hot-spot analyses are not required for other projects. The interagency consultation process plays an important role in evaluating which projects require quantitative hot-spot analyses and determining the methods and procedures for such analyses.

The air quality analysis for the I-69 Section 5 project included modeling techniques to estimate project-specific emission factors from vehicle exhaust and local  $PM_{2.5}$  concentrations due to project operation. Emissions and dispersion modeling techniques were consistent with the EPA quantitative PM hot-spot analysis guidance, "Transportation Conformity Guidance for Quantitative Hot-spot Analysis in  $PM_{2.5}$  and  $PM_{10}$  Nonattainment and Maintenance Areas" (USEPA, 2010) that was released in December, 2010.

## **B. Interagency Consultation**

The conformity rule requires that federal, state and local transportation and air quality agencies establish formal procedures for interagency coordination. This analysis included participation from the following agencies:

- FHWA Indiana Division and Resource Center
- Indiana Department of Environmental Management (IDEM)
- Indiana Department of Transportation (INDOT)
- Indianapolis Metropolitan Planning Organization (MPO)
- EPA Office of Transportation and Air Quality (OTAQ)
- EPA Region 5

Interagency consultation provides an opportunity to reach agreements on key assumptions to be used in conformity analyses, strategies to reduce mobile source emissions, specific impacts of major projects,

<sup>&</sup>lt;sup>1</sup> US EPA. 2010. Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM<sub>2.5</sub> and PM<sub>10</sub> Nonattainment and Maintenance Areas" (EPA-420-B-10-040) located online at: http://www.epa.gov/otaq/stateresources/transconf/policy/420b10040.pdf

issues associated with travel demand and emissions modeling for hot-spot analyses. 40 CFR 93.105(c)(1)(i) requires interagency consultation to "evaluate and choose models and associated methods and assumptions." Per Section 2.3 of EPA's hot-spot guidance, "for many aspects of PM hot-spot analyses, the general requirement of interagency consultation can be satisfied without consulting separately on each and every specific decision that arises. In general, as long as the consultation requirements are met, agencies have discretion as to how they consult on hot-spot analyses."

For this project, interagency consultation meetings were held on April 19 and April 29, 2013. The meetings were used to obtain feedback on the document text and technical analysis assumptions. **Exhibit 1** provides a summary of the meeting topics and the key decisions by the interagency consultation group (ICG).

**Exhibit 1: Key ICG Decisions on Quantitative Methods and Data** 

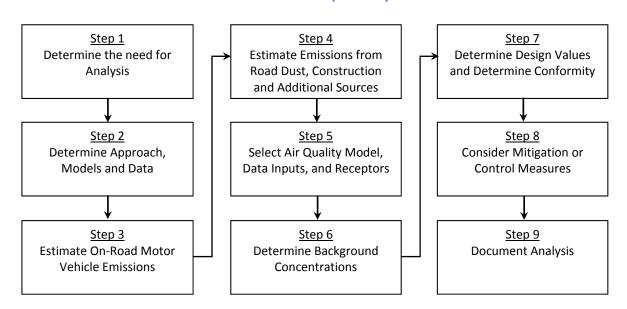
Topic	Key Decisions/Considerations
Analysis Approach	Compare results of the Build analyses to the NAAQS.
Study Area	Focus on the I-69 / SR39 Interchange. It was determined this location was the location with highest emissions.
Analysis Years	Analyze both 2018 and 2035
Type of PM Emissions Analyzed	<ul> <li>Direct PM<sub>2.5</sub> mobile source running emissions (exhaust, crankcase, brake/tire wear)</li> <li>Construction emissions are not considered (&lt; 5 years in duration)</li> <li>No major non-road sources near the project location</li> <li>Road dust is not considered a significant source</li> </ul>
Emission and Air Quality Models	<ul><li>MOVES2010b</li><li>AERMOD (run using "Area" method)</li></ul>
Background Concentrations	<ul> <li>Based on closest monitor location in Bloomington</li> <li>Average monitor reading 2010-2012 = 10.43</li> </ul>
Traffic Data Source – MOVES Application Methods	Utilize project corridor model used for other components of EIS
Receptor Locations	Placed according to EPA guidance
Other Input Parameters	<ul> <li>MOVES inputs consistent with SIP/Conformity analysis by Indianapolis MPO</li> <li>Recommendations from hot-spot training</li> <li>AERMOD meteorology from IDEM</li> </ul>

A follow-up meeting was conducted on May 23, 2013 to review the preliminary version of the technical report, offer feedback, and to advance the document for public comment.

## C. Overview of the Analysis Approach

EPA released guidance for quantifying the local air quality impacts of certain transportation projects for the PM<sub>2.5</sub> and PM<sub>10</sub> NAAQS on December 10, 2010. This guidance must be used by state and local agencies to conduct quantitative hot-spot analyses for new or expanded highway or transit projects with significant increases in diesel traffic in nonattainment or maintenance areas.

The steps required to complete a quantitative PM hot-spot analysis are summarized in **Exhibit 2**. The hot-spot analysis compares the air quality concentrations with the proposed project (the build scenario) to the 1997 annual PM<sub>2.5</sub> NAAQS. These air quality concentrations are determined by calculating a future design value, which is a statistic that describes a future air quality concentration in the project area that can be compared to a particular NAAQS. This report serves as documentation of the PM hot-spot analysis (Step 9) and includes a description of all steps.



**Exhibit 2: EPA's PM Hot-spot Analysis Process** 

## D. (Step 1) Determine Need for PM Hot-spot Analysis

Section 93.109(b) of the conformity rule outlines the requirements for project-level conformity determinations. A  $PM_{2.5}$  hot-spot analysis is required for projects of local air quality concern, per Section 93.123(b)(1). The need for a quantitative  $PM_{2.5}$  analysis for I-69 Section 5 was discussed by the ICG. It was noted that the project is located in a  $PM_{2.5}$  nonattainment area with an increase in the number of diesel vehicles expected in future years. The ICG agreed that a project level hot-spot analysis would be conducted for I-69 Section 5 although the group did not conclude that the project was a Project of Air Quality Concern.

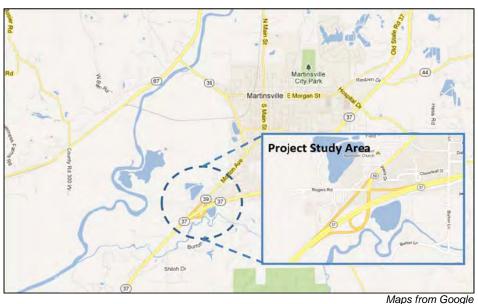
## E. (Step2) Determine Approach, Models and Data

#### **Geographic Area and Emission Sources**

PM hot-spot analyses must examine the air quality impacts for the relevant PM NAAQS in the area substantially affected by the project (40 CFR 93.123(c)(1)). It is appropriate in some cases to focus the PM hot-spot analysis only on the locations of highest air quality concentrations. For large projects, it may be necessary to analyze multiple locations that are expected to have the highest air quality concentrations and, consequently, the most likely new or worsened NAAQS violations.

In ICG discussions regarding I-69 Section 5, the length of the project falling within the Indianapolis PM<sub>2.5</sub> non-attainment area was selected as a starting point in determining the geographic area impacted by

the project. Results from regional traffic modeling were compiled and evaluated for locations within the Morgan County portion of the project (e.g. within the nonattainment area) and for other nearby areas that could be affected by the project. The location that was determined to potentially have the highest traffic and emissions is the interchange of I-69 with State Route (SR) 39 as illustrated in Exhibit 3. This interchange falls just out of the Section 5 project study area but within the PM<sub>2.5</sub> hot-spot analysis area due to its potential to be influenced by the project. This interchange was chosen for evaluation to ensure that the location with the greatest likelihood to cause a potential exceedance would still meet the applicable NAAQS. The geographic area for the analysis was therefore focused on this area including the roadways accessing the freeway.



**Exhibit 3: Study Area for Quantitative Hot-spot Analysis** 

The emissions and air quality analysis were based on the earlier traffic forecasting effort which considered all reasonable and foreseeable development within the region. That effort did not identify any new or worsening point sources or facilities with significant numbers of idling diesel vehicles that would require individual consideration.

#### Analysis Approach and Year(s)

As this project is being constructed as part of a national corridor, the most significant increases in diesel vehicle volumes are expected in the 2035 analysis year once the national corridor is largely completed. The opening year (2018) will have a smaller number of diesel vehicles but this 2018 fleet is assumed to include more trucks that pre date newer emission standards. The ICG felt that the staging of the projects was such that there were no intermediate years that warranted additional consideration above and beyond these two analysis years. The ICG agreed to model both the 2018 and 2035 analysis years, to assure the peak emission year was analyzed.

According to EPA guidance and per ICG agreement, the hot-spot analysis focused on the project's build alternative. A hot-spot evaluation of the no-build analysis is not required to demonstrate conformity when the build alternative does not show a new or worsened violation of the NAAQS.

#### **PM NAAQS Evaluated**

The project is located in an area designated as nonattainment for the 1997 annual PM<sub>2.5</sub> NAAQS (15 micrograms per cubic meter  $\mu g/m^3$ ). The area is currently attaining the 24-hour PM<sub>2.5</sub> NAAQS and 24-hour PM<sub>10</sub> NAAQS.

#### **Type of PM Emissions Modeled**

The PM hot-spot analyses include only directly emitted PM<sub>2.5</sub> emissions. These include vehicle running and crankcase exhaust, brake wear, and tire wear emissions from on-road vehicles. Start and evaporative emissions are not a significant portion of the roadway emissions in the study area. Any non-running emissions are assumed to be included in the background concentrations. PM<sub>2.5</sub> precursors are not considered in PM hot-spot analyses, since precursors take time at the regional level to form into secondary PM.

Re-entrained road dust was not included because the State Implementation Plan does not identify that such emissions are a significant contributor to the PM<sub>2.5</sub> air quality in the nonattainment area. In addition, emissions from construction-related activities were not included because they are considered temporary as defined in 40 CFR 93.123(c)(5) (i.e. emissions that occur only during the construction phase and last five years or less at any individual site).

#### **Models and Methods**

The latest approved emissions model must be used in quantitative PM hot-spot analyses. The latest approved emission factor model is EPA's MOVES2010b. Ground-level air concentrations of PM<sub>2.5</sub> were estimated using AERMOD which is listed as one of the recommended air quality models for highway and intersection projects in the EPA quantitative PM hot-spot guidance. Per EPA OTAQ recommendations, the roadway emissions were treated as an area source within the AERMOD model.

#### **Project-Specific Data**

The conformity rule requires that the latest planning assumptions (available at the time that the analysis begins) must be used in conformity determinations (40 CFR 93.110). In addition, the regulation states that hot-spot analysis assumptions must be consistent with those assumptions used in the regional emissions analysis for any inputs that are required for both analyses (40 CFR 93.123(c)(3)).

This quantitative analysis uses local-specific data for both emissions and air quality modeling whenever possible, though default inputs may be appropriate in some cases. The Indianapolis MPO provided MOVES input files that were used for regional emissions analyses, including vehicle/fleet characterization data (age, fleet mix etc.), meteorological data, fuel, and control strategy parameters.

Under a separate traffic evaluation effort<sup>2</sup>, a corridor-specific regional travel demand model was developed to evaluate travel conditions in the future. The results of the travel model were used in determining the link characteristics (roadway type, number of lanes, coordinates, etc.) as well as future operating characteristics (traffic volume, speed, levels of congestion, etc.). As with most typical regional models, the study area is represented using a series of one and two-way links, with each link representing a section of roadway with similar traffic/activity conditions and characteristics. The

<sup>&</sup>lt;sup>2</sup> See Section 5.6 of the I-69 Evansville to Indianapolis, Indiana, Section 5, Bloomington to Martinsville, Indiana Tier2 Final Environmental Impact Statement

regional corridor modeling was available for a base year and a 2035 forecast year. The modeling completed for 2035 showed little congestion on any of the roadways in the study area. The traffic volumes for 2018 were developed by interpolating the base and forecast analysis year results. Given the nature of the improvements that will occur in the study area, it was also predicted that conditions would be similarly uncongested in the 2018 analysis year. It should be noted that there are no signalized intersections within the boundary area for the hot-spot analysis, and all intersections were controlled with a combination of stop and yield signs. Queuing within the study area impacting the PM hot-spot analysis is expected to be minimal. Estimates of the 2018 and 2035 traffic volumes can be found in **Attachment A**. Interagency consultation agreed that the 2035 No-Build traffic should assume Section 6 is built and open to traffic, to be consistent with the Indianapolis Metropolitan Transportation Planning assumptions.

To support the MOVES modeling of specific roadway links, geographic digital elevation files were also obtained from the Indianapolis Mapping and Geographic Infrastructure System (*imagis*). This data was used to estimate a link-specific grade that impacted the resulting emission factors from MOVES. **Attachment B** summarizes the MOVES input data for each roadway link.

Hourly meteorological data is used for dispersion modeling and must be representative of the project area. The most recent available years (2006-2010) of off-site meteorological data prepared by IDEM was downloaded from the IDEM website (<a href="http://www.in.gov/idem/airquality/2376.htm">http://www.in.gov/idem/airquality/2376.htm</a>). Surface meteorological data is from the National Weather Service Site for Indianapolis, IN, while upper air meteorological data is from the Lincoln, IL station.

### F. (Step 3) Estimate On-Road Vehicle Emissions

On-road vehicle emissions were estimated using the MOVES emission factor model. As discussed in the previous section, the MOVES inputs are consistent with recent SIP and conformity analyses conducted by the Indianapolis MPO. The modeling undertaken for this project includes traffic estimates subdivided into light duty vehicles (autos) and trucks. These values were allocated into the various MOVES source-type (vehicle) classifications by applying vehicle distributions used in the development of the on-road mobile source emissions inventory found in the SIP.

The MOVES input traffic information relies on link-specific data, a distinction that is particularly important when employing it for project level analysis. A link file includes the vehicle volume, average speed, facility type, and grade. The PM emissions vary by time of day and time of year. Volume and speed data for each link were provided by the traffic analysts for AM peak, PM peak, and daily average traffic conditions.

For each analysis year, MOVES was run for four weekday time periods (AM peak, midday, PM peak, and overnight) for four different months (January, April, July, and October) to account for different climate conditions throughout the year. The AM and PM peak time periods were run with peak-hour traffic activity while the midday and overnight time periods were run with average-hour activity. Time periods were represented by the following hours:

- 6 AM was used to represent the AM time period (6 AM 9 AM.)
- 12 PM was used to represent the midday time period (9 AM 4 PM)
- 6 PM was used to represent PM peak time period (4 PM 7 PM)
- 12 AM was used to represent the overnight time period (7 PM 6 AM)

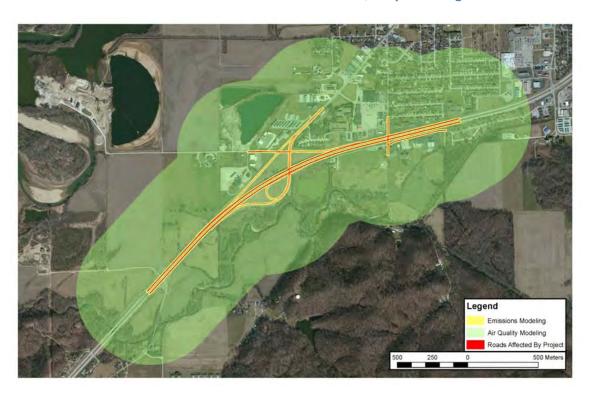
The results of the four hours were extrapolated to cover the entire day. The MOVES2AERMOD tool downloaded from the EPA website was utilized to post-process MOVES outputs for generating the "EMISFACT" portion of an AERMOD input file. The emission rates as input to AERMOD are in units of grams per second per square meter. **Attachment C** summarizes MOVES emission rates by four representative time periods for each of the four representative months. A checklist summarizing MOVES "Run Spec" and input assumptions is shown in **Attachment D**.

### G. (Step 4) Road Dust, Construction, and Additional Sources

Road dust emissions were not included in the analysis as described in Step 2. Construction emissions were not included as the period of construction for this segment will be for less than five years. No additional sources of  $PM_{2.5}$  emissions were included in this analysis. It is assumed that  $PM_{2.5}$  concentrations due to any nearby emissions sources are included in the ambient monitor values that are used as background concentrations. In addition, this project is not expected to result in changes to emissions from existing nearby sources or support any new facilities that would impact localized  $PM_{2.5}$  emissions

## H. (Step 5) Air-Quality Model, Data Inputs, and Receptors

The following provides an overview of the air quality modeling undertaken including the assumptions used in EPA's AERMOD model that was used to estimate concentrations of PM<sub>2.5.</sub> The AERMOD model requires the determination of the emission sources (e.g. the roadway) and the locations to measure air quality concentrations (e.g. the receptors). **Exhibit 4** illustrates the extents used to define the source and receptor locations.

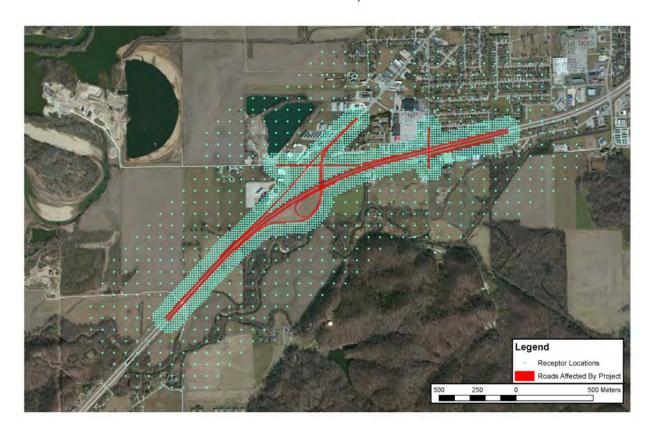


**Exhibit 4: Extent of Emissions and Air Quality Modeling** 

Defined areas were used to delineate the emission sources. Using GIS software, polygons were created having the same roadway segmentation as found in the traffic forecasting and MOVES modeling, with the width set to the width of the travel lanes. The areas/polygons representing ramps include an additional one-lane wide section parallel the mainline roadway to represent the merge areas.

As recommended in the EPA PM hot-spot guidance, receptors were placed in order to estimate the highest concentrations of  $PM_{2.5}$  and to determine any possible violations of the NAAQS. Areas with higher concentrations of  $PM_{2.5}$  are expected nearest the interchange and along the I-69 right—of-way. An area within 5m of the edge of all roadways was excluded as were medians and other areas to which the public would not have access. In cases where it was unclear if the area might be the site for future development, the area was included as a conservative assumption.

GIS software was used to define an area within 80 meters of the roadway edges. Within this area (but outside the excluded areas) receptors were located in a 15m grid formation. A second area was then defined between 80m and 500m of the edge of the roadways. Within this area, receptors were located in 75m grid formation. The extensive grid of receptors is used to evaluate the impact of the roadway emissions within the study area. **Exhibit 5** illustrates the extent area for receptor locations.



**Exhibit 5: Modeled Receptor Locations** 

## I. (Step 6) Background Concentrations from Nearby and Other Sources

The determination of background emissions was based on readings available from monitors in the region. No monitor is located immediately within the study area. Nearby monitors are shown in **Exhibit 6**.

Annual Mean Average (ug/m3) (ug/m3) Site Site ID 2010 2011 2012 2010-2012 181050003 11.10 10.70 9.50 1 10.43 2 180970043 15.10 13.90 12.40 13.80 3 180970084 13.80 12.70 11.10 12.53 4 180970083 13.90 12.70 11.10 12.57 5 180970078 12.90 11.80 10.80 11.83 6 14.00 12.40 11.70 12.70 180970081 181670018 13.00 12.40 10.40 11.93 Martinsville = Analysis Area

Exhibit 6: Monitor Locations and Average Annual PM<sub>2.5</sub> Levels Reported

\*Per IDEM, monitor sites 2 and 3 are considered not appropriate for NAAQS comparison.

Key references used in determining the appropriate background concentration levels to use include:

- The EPA PM Hot-spot guidance (Section 8)
- Conformity rule, Sections 93.105(c)(1)(i) and 93.123(c)
- 40 CFR Part 51, Appendix W, Section 8.2.1 and 8.2.3

Monitor data was obtained from the EPA's AIR website (<a href="http://www.epa.gov/airdata/">http://www.epa.gov/airdata/</a>). Factors in choosing the monitors included:

- Distance of monitor from project area
- Wind patterns between monitor from project area
- Similar characteristics between the monitor location and project area

Based on ICG discussions, the Bloomington monitor was selected for representative background concentrations for this analysis due to its proximity to the study area. With prevailing winds generally

from the southwest during most of the year (<a href="http://iclimate.org/narrative.asp">http://iclimate.org/narrative.asp</a>) this appeared to be a conservative choice. The average monitor reading over last 3 years (2010-2012) was equal to a value of 10.43  $\mu$ g/m³; a monitor value that the ICG agreed reasonably reflected the background concentration in this region. These values are conservative because it is expected that ambient PM<sub>2.5</sub> concentrations will be lower in future years as a result of the State Implementation Plan and the general trend in declining vehicle emissions due to technological advances. Also, the project area is decidedly less developed than the areas sampled by these monitors, making the estimated background emissions even more conservative. This value was added to the AERMOD modeled receptor values to yield a design values for comparison to the NAAQS.

## J. (Step 7) Calculate Design Values and Determine Conformity

The previous steps of the PM hot-spot analysis were combined to determine design values that were compared to the NAAQS for each analysis year. The annual PM<sub>2.5</sub> design values are defined as the average of three consecutive years' annual averages, each estimated using equally-weighted quarterly averages. This NAAQS is met when the three-year average concentration is less than or equal to the 1997 annual PM<sub>2.5</sub> NAAQS.

AERMOD was run to provide the annual average  $PM_{2.5}$  concentrations at each receptor. For the receptor with the maximum modeled concentration (in each analysis year), the following steps were used to determine the design value, as outlined in EPA's guidance.

- 1. Obtain the average annual concentration for the receptor with the maximum modeled concentration from AERMOD output.
- 2. Add the average annual background concentration (10.43  $\mu$ g/m³ as described in Step 6) to the average annual modeled concentration to determine the total average annual concentration.
- 3. **Exhibit 7** summarizes the design values that correspond to the receptor with the maximum modeled concentration for each analysis year. All design values for the maximum receptor location are below the 1997 annual PM<sub>2.5</sub> NAAQS of 15.0  $\mu$ g/m³.
- 4. It is implied that the design value for all other receptors within the model domain are equal to, or lower than, the values in **Exhibit 7**, and therefore, are also below the NAAQS.

Exhibit 7: Estimated 2018 and 2035 Design Values

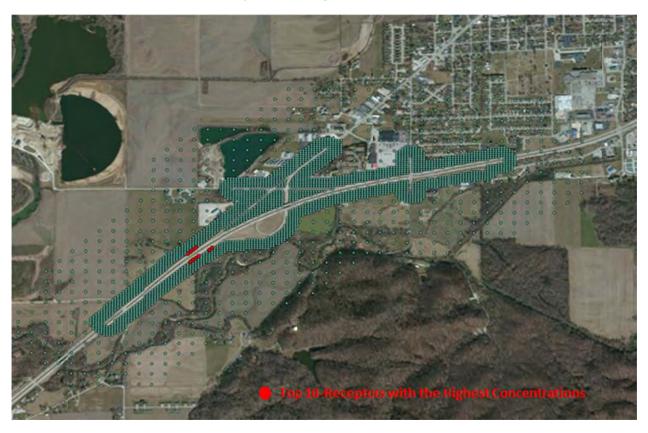
Analysis Year	Background Concentration (µg/m³)	AERMOD Modeling Results* (µg/m³)	Design Value (µg/m³) (rounded to one decimal per EPA Guidance)
2018	10.43	0.99	11.4
2035	10.43	0.70	11.1

Notes: Modeling results are for the receptors with the maximum concentration. 1997 annual PM<sub>2.5</sub> NAAQS is 15 μg/m³

 $\mu g/m^3 = micrograms per cubic meter$ 

AERMOD air quality modeling results show that the annual average concentrations are higher in 2018 than in 2035 as emission rates from MOVES for 2018 are higher than for 2035. **Exhibit 8** illustrates the top 10 receptors with the highest concentrations, all of which are from 2018 modeling results. The

project does not create a violation of the 1997 annual  $PM_{2.5}$  NAAQS or worsen an existing exceedance of the NAAQS, which supports the project level conformity determination. **Attachment E** summarizes the AERMOD modeling results for top 10 receptors with the highest concentrations and the receptor with lowest concentration for 2018 and 2035.



**Exhibit 8: Receptors with Highest Concentrations (2018)** 

## K. (Step 8) Mitigation or Control Measures

No mitigation of air quality effects was proposed. All modeled annual PM<sub>2.5</sub> concentrations are below the NAAQS.

# L. (Step 9) Document the PM Hot-Spot Analysis

This report documents the PM hot-spot analysis. Because of the large volume of input and output files, they are not included in this report and are available electronically upon request.

#### M. Public Involvement

The conformity rule requires agencies completing project-level conformity determinations to establish a proactive public involvement process that provides opportunity for public review and comment (40 CFR 93.105(e)). The technical report was advertised in the Martinsville Reporter-Times and the Indianapolis Star on May 30, 2013. A two week comment period was offered, which concluded on June 14, 2013. Copies of the public notices and affidavits are provided in **Attachment F**. No comments were received during the comment period.

#### N. Conclusion

This technical report has provided a quantitative  $PM_{2.5}$  hot-spot analysis for the I-69 Section 5 project in Indiana. The interagency consultation process played an integral role in defining the need, methodology and assumptions for the analysis. The air quality analysis included modeling techniques to estimate project-specific emission factors from vehicle exhaust and local  $PM_{2.5}$  concentrations due to project operation. Emissions and dispersion modeling techniques were consistent with the EPA quantitative PM hot-spot analysis guidance, "Transportation Conformity Guidance for Quantitative Hot-spot Analysis in  $PM_{2.5}$  and  $PM_{10}$  Nonattainment and Maintenance Areas" (USEPA, 2010) that was released in December, 2010.

The analysis had demonstrated transportation conformity for the project by determining that future design value concentrations for the 2018 and 2035 analysis year will be lower than the 1997 annual  $PM_{2.5}$  NAAQS of 15.0  $\mu g/m^3$ . As a result, the project does not create a violation of the 1997 annual  $PM_{2.5}$  NAAQS, worsen an existing violation of the NAAQS, or delay timely attainment of the NAAQS and interim milestones, which meets 40 CRF 93.116 and 93.123 and supports the project level conformity determination.

#### References

- "I-69 Evansville to Indianapolis, Indiana, Section 5, Bloomington to Martinsville, Indiana Tier 2 Final Environmental Impact Statement"
- United States Environmental Protection Agency (USEPA). 2010. "Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM<sub>2.5</sub> and PM<sub>10</sub> Nonattainment and Maintenance Areas."
- United States Environmental Protection Agency (USEPA) and United States Department of Transportation. 2012. "Completing Quantitative PM Hot-spot Analysis: 3 Day Course"

#### **Attachments**

- Attachment A: I-69 Section 5 Traffic Volumes
- Attachment B: MOVES Link Data Input Files
- Attachment C: MOVES Outputs (Emission Rates for AERMOD Modeling)
- Attachment D: MOVES and AERMOD Input Data Assumptions and Parameters
- Attachment E: AERMOD Outputs for Top 10 and Lowest Receptors
- Attachment F: Public Comment Notices and Affidavits

# Attachment A: I-69 Section 5 Traffic Volumes

Segment	2018 No B	ulld Truck	Volumes	2018 Bu	IId Truck V	olume	2035 No B	Bulld Truck	Volumes	2035 Bu	ld Truck V	olumes
Segment	AM	PM	Dally	AM	PM	Dally	AM	PM	Dally	AM	PM	Dally
SR 37 / 1-69												
South of Liberty Church Road	200	113	3,417	209	122	3,576	568	197	11,034	656	247	12,726
Between Liberty Church Road and SR 39	210	105	3,571	220	113	3,714	569	199	11,060	658	248	12,785
North of SR 39	170	95	3,318	189	105	3,669	436	157	8,767	608	216	12,005
Liberty Church Road												
West of I-69	1	1	9	1	1	18	5.0	7	10	3	2	74
East of I-69	2	2	36	3	3	47	2	1	40	5	3	90
SR 39												
North of SR 37 / 1-69	70	36	1.095	49	32	804	141	49	2,391	55	36	857

			SSUMES SEC	HOW 212 M	O I BUILT B	O I SECTION						
Segment	2018	No Bulld A	ADT	201	8 Build AA	DT	2035	No Bulld A	ADT	203	5 Build AA	DT
Segment	AM	PM	Dally	AM	PM	Dally	AM	PM	Dally	AM	PM	Dally
SR 37 / 1-69			- V - V - V									
South of Liberty Church Road	2,200	2,503	29,490	2,444	2,822	32,648	3,294	3,559	42,926	4,580	5,179	58,890
Between Liberty Church Road and SR 39	2,379	2,597	29,146	2,648	2.934	32,331	3,399	3,702	44,550	4,752	5,422	61,588
North of SR 39	1,894	2,245	23,252	2,178	2,521	26,810	2,574	2,827	34,350	3,984	4,589	53,104
Liberty Church Road				1000								
West of I-69	42	50	300	84	101	1,311	24	36	402	206	319	3,199
East of 1-69	56	98	1,148	80	147	1,724	82	106	1,110	250	374	3,957
SR 39												
North of SR 37 / 1-69	732	846	9,579	710	830	8.811	1.053	1.210	15,320	957	1.140	11,799

# Attachment B: MOVES Link Data Input Files

## MOVES Emissions Analysis Inputs 2018 Daily (For Hours 12 AM and 12 PM Runs)

link ID	Road Type ID	link Length (miles)	Link Volume (veh/hour)	Link Avg Speed (mph)	Link Description	Link Avg Grade
1	4	0.77	674	75.74	55-I-069 AB Link	0.05
2	4	0.23	536	76.67	55-I-069 AB Link	0.66
3	4	0.94	552	78.33	55-I-069 AB Link	-0.12
4	4	0.26	185	31.84	55-R-Flare Ramp AB Link	-0.15
5	4	0.22	55	34.74	55-R-Flare Ramp AB Link	-0.17
6	4	0.12	19	28.8	55-R-Loop Ramp AB Link	1.58
7	4	0.05	158	30	55-R-Flare Ramp AB Link	0.76
8	5	0.05	21	8.82	55-CR-150 S AB Link	0
9	5	0.04	23	34.29	55-LS-ROGERS RD AB Link	0.95
10	4	0.21	25	34.05	55-R-Flare Ramp AB Link	-0.54
11	5	0.19	206	49.57	55-S-039-0-01 AB Link	0.4
12	5	0.04	9	7.27	55-LS-BURTON LN AB Link	0
13	5	0.13	71	39	55-LS-BURTON LN AB Link	0
14	5	0.26	47	35.45	55-LS-SOUTH VIEW D AB Link	0
15	4	0.93	674	76.44	55-I-069 BA Link	-0.04
16	4	0.58	546	77.33	55-I-069 BA Link	-0.13
17	4	0.55	559	76.74	55-I-069 BA Link	0.07
18	4	0.22	180	32.2	55-R-Flare Ramp BA Link	0.17
19	4	0.05	29	33.33	55-R-Flare Ramp BA Link	-0.76
20	4	0.36	175	27.69	55-S-039-0-01 BA Link	0
21	5	0.05	18	8.82	55-CR-150 S BA Link	0
22	5	0.06	28	32.73	55-LS-ROGERS RD BA Link	-1.26
23	5	0.19	162	49.57	55-S-039-0-01 BA Link	-0.4
24	5	0.08	177	53.33	55-S-039-0-01 BA Link	-0.47
25	5	0.04	17	34.29	55-LS-BURTON LN BA Link	0
26	5	0.13	70	16.96	55-LS-BURTON LN BA Link	0
27	5	0.26	60	22.29	55-LS-SOUTH VIEW D BA Link	0
28	5	0.02	23	4	55-LS-ROGERS RD AB Link	1.89

## MOVES Emissions Analysis Inputs 2018 AM Peak Period (For Hour 6 AM Run)

link ID	Road Type ID	link Length (miles)	Link Volume (veh/hour)	Link Avg Speed (mph)	Link Description	Link Avg Grade
1	4	0.77	1324	75.74	55-I-069 AB Link	0.05
2	4	0.23	1064	76.67	55-I-069 AB Link	0.66
3	4	0.94	1086	78.33	55-I-069 AB Link	-0.12
4	4	0.26	459	31.84	55-R-Flare Ramp AB Link	-0.15
5	4	0.22	74	34.74	55-R-Flare Ramp AB Link	-0.17
6	4	0.12	37	28.8	55-R-Loop Ramp AB Link	1.58
7	4	0.05	423	30	55-R-Flare Ramp AB Link	0.76
8	5	0.05	36	8.82	55-CR-150 S AB Link	0
9	5	0.04	39	34.29	55-LS-ROGERS RD AB Link	0.95
10	4	0.21	39	34.05	55-R-Flare Ramp AB Link	-0.54
11	5	0.19	473	49.57	55-S-039-0-01 AB Link	0.4
12	5	0.04	26	7.27	55-LS-BURTON LN AB Link	0
13	5	0.13	125	39	55-LS-BURTON LN AB Link	0
14	5	0.26	78	35.45	55-LS-SOUTH VIEW D AB Link	0
15	4	0.93	1324	76.44	55-I-069 BA Link	-0.04
16	4	0.58	1082	77.33	55-I-069 BA Link	-0.13
17	4	0.55	1089	76.74	55-I-069 BA Link	0.07
18	4	0.22	424	32.2	55-R-Flare Ramp BA Link	0.17
19	4	0.05	41	33.33	55-R-Flare Ramp BA Link	-0.76
20	4	0.36	346	27.69	55-S-039-0-01 BA Link	0
21	5	0.05	30	8.82	55-CR-150 S BA Link	0
22	5	0.06	53	32.73	55-LS-ROGERS RD BA Link	-1.26
23	5	0.19	326	49.57	55-S-039-0-01 BA Link	-0.4
24	5	0.08	334	53.33	55-S-039-0-01 BA Link	-0.47
25	5	0.04	32	34.29	55-LS-BURTON LN BA Link	0
26	5	0.13	121	16.96	55-LS-BURTON LN BA Link	0
27	5	0.26	91	22.29	55-LS-SOUTH VIEW D BA Link	0
28	5	0.02	39	4	55-LS-ROGERS RD AB Link	1.89

## MOVES Emissions Analysis Inputs 2018 PM Peak Period (For Hour 6 PM Run)

link ID	Road Type ID	link Length (miles)	Link Volume (veh/hour)	Link Avg Speed (mph)	Link Description	Link Avg Grade
1	4	0.77	1467	75.74	55-I-069 AB Link	0.05
2	4	0.23	1298	76.67	55-I-069 AB Link	0.66
3	4	0.94	1316	78.33	55-I-069 AB Link	-0.12
4	4	0.26	488	31.84	55-R-Flare Ramp AB Link	-0.15
5	4	0.22	116	34.74	55-R-Flare Ramp AB Link	-0.17
6	4	0.12	48	28.8	55-R-Loop Ramp AB Link	1.58
7	4	0.05	426	30	55-R-Flare Ramp AB Link	0.76
8	5	0.05	43	8.82	55-CR-150 S AB Link	0
9	5	0.04	59	34.29	55-LS-ROGERS RD AB Link	0.95
10	4	0.21	56	34.05	55-R-Flare Ramp AB Link	-0.54
11	5	0.19	529	49.57	55-S-039-0-01 AB Link	0.4
12	5	0.04	30	7.27	55-LS-BURTON LN AB Link	0
13	5	0.13	160	39	55-LS-BURTON LN AB Link	0
14	5	0.26	110	35.45	55-LS-SOUTH VIEW D AB Link	0
15	4	0.93	1467	76.44	55-I-069 BA Link	-0.04
16	4	0.58	1322	77.33	55-I-069 BA Link	-0.13
17	4	0.55	1311	76.74	55-I-069 BA Link	0.07
18	4	0.22	426	32.2	55-R-Flare Ramp BA Link	0.17
19	4	0.05	65	33.33	55-R-Flare Ramp BA Link	-0.76
20	4	0.36	429	27.69	55-S-039-0-01 BA Link	0
21	5	0.05	41	8.82	55-CR-150 S BA Link	0
22	5	0.06	70	32.73	55-LS-ROGERS RD BA Link	-1.26
23	5	0.19	381	49.57	55-S-039-0-01 BA Link	-0.4
24	5	0.08	412	53.33	55-S-039-0-01 BA Link	-0.47
25	5	0.04	47	34.29	55-LS-BURTON LN BA Link	0
26	5	0.13	158	16.96	55-LS-BURTON LN BA Link	0
27	5	0.26	135	22.29	55-LS-SOUTH VIEW D BA Link	0
28	5	0.02	59	4	55-LS-ROGERS RD AB Link	1.89

## MOVES Emissions Analysis Inputs 2035 Daily (For Hours 12 AM and 12 PM Runs)

link ID	Road Type ID	link Length (miles)	Link Volume (veh/hour)	Link Avg Speed (mph)	Link Description	Link Avg Grade
1	4	0.77	1295	75.74	55-I-069 AB Link	0.05
2	4	0.23	1036	76.67	55-I-069 AB Link	0.66
3	4	0.94	1115	78.33	55-I-069 AB Link	-0.12
4	4	0.26	259	31.84	55-R-Flare Ramp AB Link	-0.15
5	4	0.22	79	34.74	55-R-Flare Ramp AB Link	-0.17
6	4	0.12	79	28.8	55-R-Loop Ramp AB Link	1.58
7	4	0.05	324	30	55-R-Flare Ramp AB Link	0.76
8	5	0.05	23	8.82	55-CR-150 S AB Link	0
9	5	0.04	29	34.29	55-LS-ROGERS RD AB Link	0.95
10	4	0.21	87	34.05	55-R-Flare Ramp AB Link	-0.54
11	5	0.19	311	49.57	55-S-039-0-01 AB Link	0.4
12	5	0.04	11	7.27	55-LS-BURTON LN AB Link	0
13	5	0.13	56	39	55-LS-BURTON LN AB Link	0
14	5	0.26	43	35.45	55-LS-SOUTH VIEW D AB Link	0
15	4	0.93	1281	76.44	55-I-069 BA Link	-0.04
16	4	0.58	1086	77.33	55-I-069 BA Link	-0.13
17	4	0.55	1174	76.74	55-I-069 BA Link	0.07
18	4	0.22	259	32.2	55-R-Flare Ramp BA Link	0.17
19	4	0.05	59	33.33	55-R-Flare Ramp BA Link	-0.76
20	4	0.36	194	27.69	55-S-039-0-01 BA Link	0
21	5	0.05	20	8.82	55-CR-150 S BA Link	0
22	5	0.06	36	32.73	55-LS-ROGERS RD BA Link	-1.26
23	5	0.19	245	49.57	55-S-039-0-01 BA Link	-0.4
24	5	0.08	198	53.33	55-S-039-0-01 BA Link	-0.47
25	5	0.04	22	34.29	55-LS-BURTON LN BA Link	0
26	5	0.13	55	16.96	55-LS-BURTON LN BA Link	0
27	5	0.26	55	22.29	55-LS-SOUTH VIEW D BA Link	0
28	5	0.02	29	4	55-LS-ROGERS RD AB Link	1.89

## MOVES Emissions Analysis Inputs 2035 AM Peak Period (For Hour 6 AM Run)

link ID	Road Type ID	link Length (miles)	Link Volume (veh/hour)	Link Avg Speed (mph)	Link Description	Link Avg Grade
1	4	0.77	2549	75.74	55-I-069 AB Link	0.05
2	4	0.23	2018	76.67	55-I-069 AB Link	0.66
3	4	0.94	2110	78.33	55-I-069 AB Link	-0.12
4	4	0.26	531	31.84	55-R-Flare Ramp AB Link	-0.15
5	4	0.22	92	34.74	55-R-Flare Ramp AB Link	-0.17
6	4	0.12	92	28.8	55-R-Loop Ramp AB Link	1.58
7	4	0.05	646	30	55-R-Flare Ramp AB Link	0.76
8	5	0.05	36	8.82	55-CR-150 S AB Link	0
9	5	0.04	42	34.29	55-LS-ROGERS RD AB Link	0.95
10	4	0.21	151	34.05	55-R-Flare Ramp AB Link	-0.54
11	5	0.19	626	49.57	55-S-039-0-01 AB Link	0.4
12	5	0.04	27	7.27	55-LS-BURTON LN AB Link	0
13	5	0.13	76	39	55-LS-BURTON LN AB Link	0
14	5	0.26	53	35.45	55-LS-SOUTH VIEW D AB Link	0
15	4	0.93	2249	76.44	55-I-069 BA Link	-0.04
16	4	0.58	1869	77.33	55-I-069 BA Link	-0.13
17	4	0.55	2020	76.74	55-I-069 BA Link	0.07
18	4	0.22	531	32.2	55-R-Flare Ramp BA Link	0.17
19	4	0.05	63	33.33	55-R-Flare Ramp BA Link	-0.76
20	4	0.36	380	27.69	55-S-039-0-01 BA Link	0
21	5	0.05	29	8.82	55-CR-150 S BA Link	0
22	5	0.06	57	32.73	55-LS-ROGERS RD BA Link	-1.26
23	5	0.19	431	49.57	55-S-039-0-01 BA Link	-0.4
24	5	0.08	389	53.33	55-S-039-0-01 BA Link	-0.47
25	5	0.04	33	34.29	55-LS-BURTON LN BA Link	0
26	5	0.13	74	16.96	55-LS-BURTON LN BA Link	0
27	5	0.26	63	22.29	55-LS-SOUTH VIEW D BA Link	0
28	5	0.02	42	4	55-LS-ROGERS RD AB Link	1.89

## MOVES Emissions Analysis Inputs 2035 PM Peak Period (For Hour 6 PM Run)

link ID	Road Type ID	link Length (miles)	Link Volume (veh/hour)	Link Avg Speed (mph)	Link Description	Link Avg Grade
1	4	0.77	2801	75.74	55-I-069 AB Link	0.05
2	4	0.23	2160	76.67	55-I-069 AB Link	0.66
3	4	0.94	2334	78.33	55-I-069 AB Link	-0.12
4	4	0.26	641	31.84	55-R-Flare Ramp AB Link	-0.15
5	4	0.22	174	34.74	55-R-Flare Ramp AB Link	-0.17
6	4	0.12	174	28.8	55-R-Loop Ramp AB Link	1.58
7	4	0.05	794	30	55-R-Flare Ramp AB Link	0.76
8	5	0.05	55	8.82	55-CR-150 S AB Link	0
9	5	0.04	75	34.29	55-LS-ROGERS RD AB Link	0.95
10	4	0.21	208	34.05	55-R-Flare Ramp AB Link	-0.54
11	5	0.19	761	49.57	55-S-039-0-01 AB Link	0.4
12	5	0.04	37	7.27	55-LS-BURTON LN AB Link	0
13	5	0.13	127	39	55-LS-BURTON LN AB Link	0
14	5	0.26	94	35.45	55-LS-SOUTH VIEW D AB Link	0
15	4	0.93	2668	76.44	55-I-069 BA Link	-0.04
16	4	0.58	2220	77.33	55-I-069 BA Link	-0.13
17	4	0.55	2428	76.74	55-I-069 BA Link	0.07
18	4	0.22	641	32.2	55-R-Flare Ramp BA Link	0.17
19	4	0.05	122	33.33	55-R-Flare Ramp BA Link	-0.76
20	4	0.36	448	27.69	55-S-039-0-01 BA Link	0
21	5	0.05	52	8.82	55-CR-150 S BA Link	0
22	5	0.06	89	32.73	55-LS-ROGERS RD BA Link	-1.26
23	5	0.19	548	49.57	55-S-039-0-01 BA Link	-0.4
24	5	0.08	459	53.33	55-S-039-0-01 BA Link	-0.47
25	5	0.04	57	34.29	55-LS-BURTON LN BA Link	0
26	5	0.13	126	16.96	55-LS-BURTON LN BA Link	0
27	5	0.26	116	22.29	55-LS-SOUTH VIEW D BA Link	0
28	5	0.02	75	4	55-LS-ROGERS RD AB Link	1.89

Attachment C: MOVES Outputs (Emission Rates for AERMOD Modeling)
<data begin="" following="" on="" outputs="" page=""></data>

# 2018 MOVES Emission Rates (grams/second/meter²) January & April

Month	Link ID	AM	MD	PM	NT
January	1	1.0449E-06	4.64884E-07	6.97945E-07	5.54276E-07
January	2	7.35515E-07	3.54488E-07	5.27919E-07	4.12416E-07
January	3	6.10349E-07	2.89435E-07	4.44551E-07	3.40225E-07
January	4	1.4007E-06	5.22692E-07	1.38016E-06	5.72218E-07
January	5	1.85977E-07	9.47632E-08	2.29162E-07	1.10319E-07
January	6	6.21373E-08	7.69971E-08	8.49173E-08	8.33754E-08
January	7	1.42402E-06	5.12238E-07	1.38993E-06	5.58896E-07
January	8	1.44249E-07	7.37719E-08	1.49142E-07	8.96929E-08
January	9	9.34881E-08	3.9046E-08	1.04114E-07	4.98402E-08
January	10	5.31102E-08	2.88111E-08	6.99454E-08	3.56161E-08
January	11	6.08975E-07	2.21277E-07	5.70261E-07	2.52897E-07
January	12	1.1337E-07	3.13094E-08	9.71662E-08	3.8746E-08
January	13	2.80771E-07	1.08934E-07	2.77829E-07	1.35974E-07
January	14	1.57766E-07	6.79063E-08	1.62605E-07	8.65607E-08
January	15	1.02633E-06	4.53451E-07	6.87626E-07	5.42238E-07
January	16	6.16804E-07	2.90899E-07	4.50985E-07	3.41665E-07
January	17	6.54335E-07	3.1476E-07	4.73718E-07	3.69522E-07
January	18	1.30457E-06	5.40939E-07	1.20756E-06	5.91529E-07
January	19	1.14488E-07	5.50252E-08	1.4835E-07	6.23892E-08
January	20	1.24172E-06	5.65694E-07	1.29584E-06	6.13212E-07
January	21	1.20207E-07	6.08584E-08	1.37734E-07	7.45516E-08
January	22	1.05849E-07	4.19673E-08	1.11744E-07	5.14709E-08
, January	23	3.46488E-07	1.39462E-07	3.3126E-07	1.6148E-07
January	24	3.55056E-07	1.46708E-07	3.37415E-07	1.70369E-07
January	25	6.0222E-08	2.55211E-08	6.27698E-08	3.23442E-08
January	26	4.21571E-07	1.75219E-07	4.16585E-07	2.18692E-07
January	27	3.06271E-07	1.42585E-07	3.56347E-07	1.73177E-07
January	28	2.74524E-07	1.20324E-07	3.20365E-07	1.47784E-07
April	1	6.67303E-07	3.44008E-07	4.06479E-07	3.8702E-07
April	2	4.83555E-07	2.7616E-07	3.12488E-07	3.0403E-07
April	3	3.91432E-07	2.20757E-07	2.59134E-07	2.45193E-07
April	4	1.14315E-06	4.55729E-07	1.19873E-06	4.79551E-07
April	5	1.435E-07	7.37284E-08	1.84282E-07	8.12131E-08
April	6	3.36122E-08	6.83739E-08	6.06979E-08	7.14416E-08
April	7	1.16098E-06	4.49154E-07	1.21536E-06	4.71597E-07
April	8	8.6652E-08	5.22431E-08	1.03784E-07	5.99038E-08
April	9	5.54557E-08	2.44491E-08	6.57285E-08	2.96435E-08
April	10	3.07848E-08	1.9609E-08	4.88914E-08	2.28836E-08
April	11	4.57847E-07	1.78523E-07	4.57451E-07	1.93735E-07
April	12	6.8403E-08	2.12534E-08	6.25483E-08	2.48318E-08
April	13	1.82643E-07	7.23677E-08	1.9402E-07	8.53801E-08
April	14	9.34021E-08	4.26801E-08	1.02027E-07	5.16571E-08
April	15	6.51271E-07	3.33391E-07	3.98114E-07	3.76112E-07
April	16	3.96265E-07	2.22256E-07	2.62465E-07	2.46681E-07
April	17	4.20776E-07	2.4071E-07	2.77367E-07	2.67058E-07
April	18	1.05281E-06	4.72538E-07	1.03995E-06	4.96874E-07
April	19	9.35415E-08	4.72338E-07 4.5068E-08	1.25947E-07	4.86109E-08
April	20	1.04607E-06	5.01449E-07	1.13241E-06	5.24305E-07
April	21	7.22101E-08	4.23422E-08	9.43645E-08	4.89311E-08
•	22	6.84559E-08	4.23422E-08 2.91159E-08	7.88892E-08	3.36891E-08
April April	22	6.84559E-08 2.545E-07	2.91159E-08 1.09688E-07	7.88892E-08 2.59387E-07	3.30891E-08 1.20282E-07
April April					
April April	24	2.63126E-07	1.14713E-07	2.60663E-07	1.26097E-07
April April	25 26	3.32576E-08	1.62944E-08	3.63451E-08	1.95778E-08
April	26	2.65786E-07	1.16431E-07	2.80771E-07	1.37351E-07
April	27	2.10711E-07	1.01217E-07	2.61613E-07	1.15938E-07

# 2018 MOVES Emission Rates (grams/second/meter<sup>2</sup>) July & October

Month	MOVESlinkID	AM	MD	PM	NT
July	1	5.95063E-07	3.39754E-07	3.89155E-07	3.56384E-07
July	2	4.35351E-07	2.7341E-07	2.99683E-07	2.84178E-07
July	3	3.4955E-07	2.18343E-07	2.48112E-07	2.27787E-07
July	4	1.09388E-06	4.53392E-07	1.18804E-06	4.62581E-07
July	5	1.35374E-07	7.29888E-08	1.81628E-07	7.58824E-08
July	6	2.81551E-08	6.80736E-08	5.9261E-08	6.92562E-08
July	7	1.11066E-06	4.46956E-07	1.20508E-06	4.5561E-07
July	8	7.56334E-08	5.14848E-08	1.01094E-07	5.44481E-08
July	9	4.81797E-08	2.39329E-08	6.34476E-08	2.59444E-08
July	10	2.65138E-08	1.92843E-08	4.76425E-08	2.05517E-08
July	11	4.28934E-07	1.77023E-07	4.50784E-07	1.82898E-07
July	12	5.98006E-08	2.08992E-08	6.04948E-08	2.22834E-08
July	13	1.6387E-07	7.10762E-08	1.89047E-07	7.61135E-08
July	14	8.10886E-08	4.17884E-08	9.84277E-08	4.52644E-08
July	15	5.79518E-07	3.29167E-07	3.80903E-07	3.45683E-07
July	16	3.54073E-07	2.19843E-07	2.51259E-07	2.29282E-07
July	17	3.76093E-07	2.38108E-07	2.65696E-07	2.4829E-07
July	18	1.00464E-06	4.70153E-07	1.03006E-06	4.79539E-07
July	19	8.95344E-08	4.47188E-08	1.24626E-07	4.60874E-08
July	20	1.00864E-06	4.99215E-07	1.12279E-06	5.08022E-07
	21	6.30278E-08	4.16897E-08	9.17925E-08	4.42387E-08
July	22				
July	23	6.13023E-08 2.36901E-07	2.86622E-08	7.69393E-08	3.04325E-08
July			1.08643E-07	2.55134E-07	1.12737E-07
July	24	2.45539E-07	1.1359E-07	2.56122E-07	1.17989E-07
July	25	2.8099E-08	1.59682E-08	3.47741E-08	1.72396E-08
July	26	2.35982E-07	1.14354E-07	2.72706E-07	1.22453E-07
July	27	1.92429E-07	9.97569E-08	2.55993E-07	1.05454E-07
July	28	1.59258E-07	8.18895E-08	2.16938E-07	8.69958E-08
October	1	8.71803E-07	4.10616E-07	5.67415E-07	4.77657E-07
October	2	6.20011E-07	3.1932E-07	4.31438E-07	3.62765E-07
October	3	5.09993E-07	2.58601E-07	3.61512E-07	2.96691E-07
October	4	1.28264E-06	4.92626E-07	1.29891E-06	5.29771E-07
October	5	1.66506E-07	8.53197E-08	2.09063E-07	9.69866E-08
October	6	4.90612E-08	7.31254E-08	7.40711E-08	7.79086E-08
October	7	1.30344E-06	4.83915E-07	1.31175E-06	5.18907E-07
October	8	1.17846E-07	6.41069E-08	1.28829E-07	7.60474E-08
October	9	7.60535E-08	3.2493E-08	8.6924E-08	4.05885E-08
October	10	4.28764E-08	2.46801E-08	6.05169E-08	2.97838E-08
October	11	5.39696E-07	2.02081E-07	5.19739E-07	2.25796E-07
October	12	9.27569E-08	2.67949E-08	8.16636E-08	3.23723E-08
October	13	2.35789E-07	9.25185E-08	2.40296E-07	1.12798E-07
October	14	1.28261E-07	5.65817E-08	1.35476E-07	7.05723E-08
October	15	8.54392E-07	3.99549E-07	5.57968E-07	4.66136E-07
October	16	5.15703E-07	2.60081E-07	3.66558E-07	2.98153E-07
October	17	5.47266E-07	2.81512E-07	3.85783E-07	3.22585E-07
October	18	1.18916E-06	5.10229E-07	1.1325E-06	5.4817E-07
October	19	1.04886E-07	5.05549E-08	1.38317E-07	5.60778E-08
October	20	1.15203E-06	5.3685E-07	1.22265E-06	5.72487E-07
October	21	9.82051E-08	5.2546E-08	1.18312E-07	6.28156E-08
October	22	9.82031E-08 8.87076E-08	3.61981E-08	9.70307E-08	4.33256E-08
	23				
October		3.04319E-07	1.26095E-07	2.99072E-07	1.42608E-07
October	24	3.12914E-07	1.32343E-07	3.03042E-07	1.50089E-07
October	25	4.78612E-08	2.13791E-08	5.09361E-08	2.64962E-08
October	26	3.50156E-07	1.48827E-07	3.55762E-07	1.81431E-07
October	27	2.62465E-07	1.24013E-07	3.13921E-07	1.46957E-07
October	28	2.30172E-07	1.03655E-07	2.76636E-07	1.2425E-07

# 2035 MOVES Emission Rates (grams/second/meter<sup>2</sup>) January & April

January January January January January	1 2	1.21261E-06	4.2384E-07	8.76147E-07	5.57726E-07
January January		0.044505.07			3.37, <b>L</b> OL 07
January	2	8.01159E-07	2.88295E-07	5.64625E-07	3.73834E-07
•	3	7.09373E-07	2.6038E-07	5.18629E-07	3.39648E-07
January	4	7.22501E-07	2.66233E-07	6.26542E-07	3.30259E-07
	5	1.20092E-07	7.25254E-08	1.60024E-07	9.26794E-08
January	6	1.4445E-07	8.53202E-08	1.87388E-07	1.10342E-07
January	7	9.14102E-07	3.38989E-07	7.93906E-07	4.26287E-07
January	8	1.32663E-07	6.21682E-08	1.48443E-07	7.7321E-08
January	9	7.83307E-08	3.68604E-08	9.64936E-08	4.87591E-08
January	10	1.91124E-07	7.97971E-08	1.90857E-07	1.00548E-07
January	11	3.83146E-07	1.29211E-07	3.13192E-07	1.72802E-07
, January	12	1.03843E-07	3.12758E-08	1.05099E-07	3.92891E-08
January	13	1.17988E-07	5.96745E-08	1.37228E-07	7.85002E-08
January	14	8.62894E-08	4.85519E-08	1.07812E-07	6.36153E-08
January	15	1.05973E-06	4.15093E-07	8.30292E-07	5.46144E-07
January	16	6.34824E-07	2.57729E-07	5.00383E-07	3.34974E-07
January	17	7.22548E-07	2.91088E-07	5.73846E-07	3.80811E-07
January January	18	7.26854E-07	2.6474E-07	6.22888E-07	3.3133E-07
	19	8.2266E-08	5.52775E-08	1.13894E-07	6.8978E-08
January Januar <i>i</i>	20	5.46102E-07	2.13526E-07	4.70333E-07	2.62659E-07
January Januar <i>i</i>					
January	21	1.06112E-07	5.32902E-08	1.39049E-07	6.65173E-08
January	22	9.27493E-08	4.25893E-08	1.06205E-07	5.35399E-08
January	23	2.39251E-07	9.33032E-08	2.07321E-07	1.23642E-07
January	24	2.07255E-07	7.1458E-08	1.65149E-07	9.58045E-08
January	25	5.53079E-08	2.58081E-08	6.75275E-08	3.35828E-08
January	26	1.94695E-07	1.03494E-07	2.39617E-07	1.32303E-07
January	27	1.44014E-07	8.94737E-08	1.90927E-07	1.13872E-07
January	28	2.31109E-07	1.13151E-07	2.92916E-07	1.44416E-07
April	1	6.18235E-07	2.4282E-07	4.0036E-07	3.07218E-07
April	2	4.17383E-07	1.72649E-07	2.59414E-07	2.13785E-07
April	3	3.68495E-07	1.53206E-07	2.39406E-07	1.91332E-07
April	4	4.47505E-07	1.79659E-07	4.01453E-07	2.10463E-07
April	5	7.18988E-08	4.52724E-08	9.79867E-08	5.49701E-08
April	6	8.46285E-08	5.14846E-08	1.10356E-07	6.35246E-08
April	7	5.50398E-07	2.20949E-07	4.91008E-07	2.6295E-07
April	8	8.36091E-08	4.16784E-08	9.79072E-08	4.89693E-08
April	9	4.26616E-08	2.07699E-08	5.35826E-08	2.64959E-08
April	10	1.16548E-07	5.17372E-08	1.21532E-07	6.17219E-08
April	11	1.99715E-07	7.02664E-08	1.62085E-07	9.1241E-08
April	12	6.28016E-08	2.044E-08	6.75088E-08	2.42958E-08
April	13	6.509E-08	3.42171E-08	7.77445E-08	4.32764E-08
April	14	4.77233E-08	2.81817E-08	6.20046E-08	3.54307E-08
April	15	5.49068E-07	2.37907E-07	3.81224E-07	3.00941E-07
April	16	3.37283E-07	1.53294E-07	2.32866E-07	1.90444E-07
April	17	3.79339E-07	1.6978E-07	2.64451E-07	2.12934E-07
April	18	4.40845E-07	1.747E-07	3.88778E-07	2.06737E-07
April	19	5.23491E-08	3.67513E-08	7.42895E-08	4.33435E-08
April	20	3.44305E-07	1.47089E-07	3.09568E-07	1.70728E-07
April	21	6.6474E-08	3.54044E-08	9.113E-08	4.17687E-08
April	22	5.68605E-08	2.7781E-08	6.85159E-08	3.30506E-08
April	23	1.27854E-07	5.22786E-08	1.11508E-07	6.68769E-08
April	24	1.07059E-07	3.85358E-08	8.53048E-08	5.02511E-08
•	24 25	3.10804E-08	3.63336E-06 1.52946E-08	3.94501E-08	1.90359E-08
April April	25 26				
April April		1.14175E-07	6.45364E-08	1.47736E-07	7.83997E-08
April	27 28	8.63492E-08 1.37367E-07	5.6481E-08 7.08769E-08	1.19281E-07 1.80193E-07	6.82218E-08 8.59189E-08

# 2035 MOVES Emission Rates (grams/second/meter<sup>2</sup>) July & October

Month	MOVESlinkID	AM	MD	PM	NT
July	1	5.04522E-07	2.36516E-07	3.721E-07	2.61335E-07
July	2	3.4396E-07	1.68645E-07	2.41292E-07	1.84471E-07
July	3	3.03279E-07	1.49482E-07	2.22824E-07	1.64166E-07
July	4	3.94896E-07	1.76621E-07	3.88109E-07	1.88523E-07
July	5	6.26792E-08	4.43117E-08	9.43054E-08	4.80638E-08
July	6	7.31844E-08	5.02925E-08	1.05786E-07	5.49499E-08
July	7	4.8082E-07	2.16808E-07	4.73055E-07	2.33036E-07
July	8	7.42249E-08	4.09571E-08	9.49112E-08	4.37767E-08
July	9	3.58377E-08	2.02011E-08	5.10321E-08	2.24182E-08
July	10	1.02281E-07	5.07487E-08	1.1742E-07	5.46111E-08
July	11	1.64622E-07	6.81893E-08	1.53112E-07	7.63028E-08
July	12	5.49501E-08	2.00582E-08	6.5279E-08	2.15498E-08
July	13	5.497E-08	3.33173E-08	7.42098E-08	3.6825E-08
July	14	4.03451E-08	2.74612E-08	5.92818E-08	3.02686E-08
July	15	4.51369E-07	2.31736E-07	3.54552E-07	2.5603E-07
July	16	2.80358E-07	1.49669E-07	2.16983E-07	1.63972E-07
July	17	3.13679E-07	1.65564E-07	2.46077E-07	1.82185E-07
July	18	3.86129E-07	1.7154E-07	3.74898E-07	1.83918E-07
July	19	4.66258E-08	3.60991E-08	7.19409E-08	3.86486E-08
•		3.057E-07			
July	20		1.44758E-07	3.00039E-07	1.53891E-07
July	21	5.8891E-08	3.47743E-08	8.82884E-08	3.72361E-08
July	22	4.99946E-08	2.72582E-08	6.62778E-08	2.92979E-08
July	23	1.06542E-07	5.08322E-08	1.05818E-07	5.64802E-08
July	24	8.78906E-08	3.73746E-08	8.05617E-08	4.19077E-08
July	25	2.64455E-08	1.49229E-08	3.77814E-08	1.63716E-08
July	26	9.87708E-08	6.31596E-08	1.42277E-07	6.8527E-08
July	27	7.5317E-08	5.53156E-08	1.15025E-07	5.98606E-08
July	28	1.19434E-07	6.93922E-08	1.73519E-07	7.52056E-08
October	1	9.40131E-07	3.42558E-07	6.63065E-07	4.4297E-07
October	2	6.25224E-07	2.36365E-07	4.27935E-07	3.00517E-07
October	3	5.53107E-07	2.12256E-07	3.93578E-07	2.71706E-07
October	4	5.96441E-07	2.27366E-07	5.25741E-07	2.75384E-07
October	5	9.80001E-08	6.02905E-08	1.32242E-07	7.54057E-08
October	6	1.17027E-07	7.01302E-08	1.52891E-07	8.88963E-08
October	7	7.47379E-07	2.85996E-07	6.5826E-07	3.51467E-07
October	8	1.10176E-07	5.29696E-08	1.25811E-07	6.43339E-08
October	9	6.19795E-08	2.96368E-08	7.72765E-08	3.85606E-08
October	10	1.56938E-07	6.72001E-08	1.59812E-07	8.27629E-08
October	11	2.99058E-07	1.02748E-07	2.45521E-07	1.3544E-07
October	12	8.50295E-08	2.64113E-08	8.82653E-08	3.24211E-08
October	13	9.37392E-08	4.82461E-08	1.10589E-07	6.23648E-08
October	14	6.86102E-08	3.94072E-08	8.7298E-08	5.07044E-08
October	15	8.25629E-07	3.35534E-07	6.29176E-07	4.33819E-07
October	16	4.98424E-07	2.10834E-07	3.80575E-07	2.68765E-07
October	17	5.65213E-07	2.36617E-07	4.35283E-07	3.03906E-07
October	18	5.95746E-07	2.24317E-07	5.18047E-07	2.74257E-07
October	19	6.85519E-08	4.69604E-08	9.61579E-08	5.72356E-08
October	20	4.53597E-07	1.83699E-07	3.98338E-07	2.20549E-07
October	20	4.53597E-07 8.79416E-08	4.52605E-08	3.96336E-07 1.17589E-07	5.51806E-08
October	22	7.62974E-08	3.59414E-08	8.93268E-08	4.41542E-08
October	23	1.88185E-07	7.48857E-08	1.64413E-07	9.76388E-08
October	24	1.61324E-07	5.6678E-08	1.29393E-07	7.49373E-08
October	25	4.42017E-08	2.10883E-08	5.49537E-08	2.69191E-08
October	26	1.57783E-07	8.60046E-08	1.98469E-07	1.07611E-07
October	27	1.1758E-07	7.46624E-08	1.58841E-07	9.29602E-08
October	28	1.88138E-07	9.41728E-08	2.42436E-07	1.1762E-07

# Attachment D: MOVES and AERMOD Input Data Assumptions and Parameters

## Data Checklist MOVES Project-Level Emission Modeling

Data Item	Inputs Needed/Assumptions	Data Source
MOVES RunSpec	inpute Needda, Needinpuene	Data Course
Scale/Calulation Type	Project Scale Inventory Run	
Analysis County	Morgan County (FIPS: 18109)	0 0 0 0 11 11 0 0 0 11 11 0 0 0
Analysis Years	2018 & 2035	
Representative Months	January (Jan-Mar), April (Apr-Jun), July (Jul-Sep), October(Oct-Dec)	
Representative Hours	6 am (6am-9am), 12 pm (9am-4pm), 6 pm(4pm-7pm), 12 am(7pm-6am)	
Number of Runs	4 hours of a weekday x 4 quarters = 16 runs per scenario	
Pollutants and Processes	Primary Exhuast PM2.5 - Total: Running Exhaust & Crankcase Running Exhaust Primary PM2.5 - Brakewear Particulate Primary PM2.5 - Tirewear Particulate	
Stage II Refueling Emissions	Not Applicable	
Fuel Types	Gasoline, Diesel, CNG	
Traffic Data		
Highway Network	Requried traffic volume, speed, distance and facility type by time period (AM/PM peak and daily average) for each link. Average speed will be estimated using traffic volume and traffic delay from model network.	- Traffic network databases received from Brian Curtis on 4/2/2013 - Network field definition file received from Brian Curtis on 4/8/2013
MOVES Inputs		
Fuel Supply	Use MOVES defaults (Marion County's fuel inputs for regional analysis as provided by	- MOVES inputs for Marion County
Fuel Formulation	Indianapolis MPO are based on MOVES defaults)	received from Indianapolis MPO
I/M Parameters	Not Applicable	(Catherine Kostyn) on 4/8/2013 -Seasonal MOVES meteorology
Vehicle Age Distribution	Use same inputs as developed for PM2.5 SIP (Marion County inputs)	inputs for Marion County received
Temperatures/Humidity	Average meteorology data for each hour for each representative time period. Use same inputs as developed for recent PM2.5 SIP/regional analysis.	from CDM Smith (Roberto Miquel) on 4/22/2013
Links	Average speed, traffic volume, distance and road type (facility type) for each link.  Examine traffic network to define representative links based on geographic and vehicle activity parameters (e.g. traffic volume and congested speed)  Grade: Calculated based on link length and elevation data provided by IMAGIS.	- Elevation data (DEMs) received from IMAGIS (Jim Stout) on 4/22/2013
Link Source Type	Distribution of source type population for each link. Use traffic volumes from model network and regional fleet distribution (based on MOVES source type population input for reginal analysis) to calculate link source type distribution.	MOVES data received from Indianapolis MPO (Catherine Kostyn) on 4/8/2013
Link Drive Schedule	Not Applicable	
Operating Mode Distribution	Not Applicable	
Off-Network Link	Not Applicable	
Control Programs		
Early NLEV / CALLEVII	Not Applicable	
Stage II Refueling Parameters	Not Applicable	

## Data Checklist AERMOD Dispersion Modeling

Data Item	Inputs Needed/Assumptions	Data Source
Analysis		
Air Quality Dispersion Model	AERMOD (Dated 12345)	Downloaded from EPA's SCRAM website (http://www.epa.gov/ttn/scram/dispersion _prefrec.htm#aermod)
Key AERMOD Inputs		
Modeling Options	Modle concentration and assume flat terrain	
Pollutant	PM 2.5	
Averaging Period	Annual	
Receptor Height	1.8 meters	Per EPA & DOT "Completing Quantitative PM Hot-spot Analysis: 3 Day Course" Training Document (2012)
Emission Source Type	Model roadway links as "Area" sources, and use "AREAPOLY" option to specify area sources.	
Release Height	1.3~1.8 meters (estimated using a volume-weighted avearge for each link). Assume release height is 1.3 meters for light duty vehicles and 3.4 meters for heavy duty vehicles.	Per EPA & DOT "Completing Quantitative PM Hot-spot Analysis: 3 Day Course" Training Document (2012)
Initial Vertical Dispersion Coefficient	1.2~1.7 meters (estimated using a volume-weighted avearge for each link). Assume coefficient is 1.2 meters for light duty vehicles and 3.2 meters for heavy duty vehicles.	Per EPA & DOT "Completing Quantitative PM Hot-spot Analysis: 3 Day Course" Training Document (2012)
Emission Rates	Emission factors (g/s/m2) by season and hour of day derived from MOVES outputs	
Receptors	Receptor are placed per PM Hot-Spot Guidance and considering sensitive populations: First receptor network is within 5-80 meters of the roadway edges with 15 meters of spacing among receptors. Second receptor network is within 80-500 meters of the roadway edges with 75 meters of spacing among receptors.	Per EPA Quantitative PM Hot-Spot Analyses Guidance
Meteorology Data (*.sfc & *.pfl)	Use 5 most recent available years (2006-2010) of off-site meteorological data available from IDEM website: - Surface meteorological data is from the National Weather Service Site for Indianapolis, IN - Upper air meteorological data is from Lincoln, IL station.	Downloaded from IDEM website (http://www.in.gov/idem/airquality/2376.ht m)

# Attachment E: AERMOD Outputs for Top 10 and Lowest Receptors

2018 AERMOD Outputs

Rank	х	Y	AERMOD Modeling Results (μg/m³)
1	954470	461105	0.98771
2	954455	461090	0.95111
3	954410	461120	0.9481
4	954425	461135	0.92261
5	954440	461075	0.91043
6	954545	461165	0.90249
7	954440	461150	0.89479
8	954455	461165	0.86358
9	954530	461150	0.86002
10	954425	461060	0.85588
Lowest	953465	460535	0.02154

## **2035 AERMOD Outputs**

Rank	х	Υ	AERMOD Modeling Results (μg/m³)
1	954470	461105	0.69623
2	954455	461090	0.6766
3	954410	461120	0.65825
4	954440	461075	0.65513
5	954425	461135	0.63944
6	954425	461060	0.62783
7	954170	460805	0.6239
8	954440	461150	0.61853
9	954185	460820	0.60922
10	954200	460835	0.59584
Lowest	953465	460535	0.01767

Attachment F: Public Comment Notices and Affidavits	
<notices affidavits="" and="" begin="" following="" on="" page=""></notices>	







.



SERVICES ANNOUNCEMENTS GARAGE SALES AUTOS REAL ESTATE APTS/RENTALS EMPLOYMENT PUBLIC NOTICES ITEMS/MERCHANDISE View newspaper display ads Coupons Area auctions Bargain buys Absolutely free Wanted \* Place a classified ad 24-7 \*

--Search all categories...

Search the classifieds!

#### **Public notices**

NOTICE TO BIDDERS Scaled bids will be received by the Board of Commissioners of Monroe County at the Monroe County Auditors Office, Courthouse Room 209, Bloomington, Indiana 47404 until Friday, June 14, 2013 at 9:00 a.m. E.S.T. for the following: Replacement of Bridge No. 28 On Vernal Pike Over Richland Creek In Monroe County, Indiana: Bids will be publicly opened and read aloud immediately thereafter at a Commissioner's meeting in the Monroe County Courthouse, Bids received after immencement of the meeting will be returned unopened. Bids received by facsimile machine will not be accepted. Construction shall be in accordance with the bidding documents which are on file with the County Engineer. Said documents may be examined by prospective bidders at the following locations: County Highway Engineer's Office 501 N Morton Street, Suite 216 Bloomington, Indiana 47404 Beam Longest and Neff, LLC 8126 Castleton Road Indianapolis, Indiana 46250 All bidders shall comply with Chapter 275 of the Monroe County Code, the Responsible and Responsive Bidder Ordinance, Bidding documents are available for purchase and/or viewing through the Beam, Longest and Noff, L.L.C. on-line Plan Room beginning at 9:00 a.m. on May 29, 2013 and may be obtained for the sum of \$75 plus shipping and handling per set for the Proposal, Specifications, Contract Documents and Plans, of which none is refundable. Please visit http://www.binplanroom.com to preview or purchase plans. Shipping of documents can be arranged with recipients UPS or FedEx account information. Wage scales shall not be less than the Common Construction Wage rates as determined in accordance with IC 5-16-7-1. Bid Documents: All bids shall be accompanied by (1) Bid Form included in the ents (3) Non-discrimination bidding documents (2) completed Form 96 (Ind. State Board of Accounts - Rey.) with required attachm affidavit as required by the laws of the State of Indiana, and (4) Bid security, as described below (5) Other bidding documents as described in the instructions to bidders. Bid Security: Bid Security in the amount of five percent (5%) of the Bid shall accompany each Bid. Bid Security may be in the form of a Bid Bond (A-310), certified check or cashiers check. If the Bidder withdraws a bid within sixty (60) days after the opening date, without consent of the Owner or falls to execute a satisfactory contract within ten (10) days after notice of acceptance, the Owner may declare the Bid deposit forfeited as liquidated damages. Bonds: The successful Bidder will be required to furnish Performance and Payment Bonds for 100% of the Contract Sum. The Owner reserves the right to accept or reject any Bid and to waive any irregularities in the bidding. All bids may be held for a period not to exceed 60 days, or as otherwise stated in the Contract Documents before awarding the contract. Monroe County is an Equal Opportunity Employer in accordance with I.C. 22-9-1-10 and shall not permit discrimination against any employee or applicant for employment to be employed in the performance of the contract, with respect to his or her hire, tenure, terms, conditions or privileges of employment or any matter directly or indirectly related to employment, because of his race, religion, color, sex, disability, national origin, or ancestry. All out-of-state corporations must have a certificate of authority to do business in the State. Application forms may be obtained by contacting the Secretary of State, State of Indiana, Statehouse, Indianapolis, Indiana 46204. Iris F. Kjesling, President Monroe County Board of Commissioners hspaxlp

May 28: 2013

STATE OF INDIANA SS: COUNTY OF MORGAN IN THE MORGAN SUPERIOR COURT NO. I CAUSE NO.: 55D01-1305-EU0069 IN THE MATTER OF THE SUPERVISED ESTATE OF: VIOLET E. DEVRIES Deceased. NOTICE OF ADMINISTRATION
Notice is hereby given that Violet E. DeVries died on May 4, 2013, and on the 15th day of May, 2013 Diana J. Jordan was
appointed Executity of the decedent's estate and was authorized to proceed with Unsupervised Administration. All persons who
have claims against this estate, whether or not now due, must file the claim in the Office of the Clerk of this Court within three (3)
months from the date of the first publication of this notice, or within hine (9) months after the decedent's death, whichever is earlier,
or the claims will be forever barred. Dated: May 17, 2013 Stephanie Elliott Clerk. Morgan Superior CourtNo. Roger T. Coffin
COFFIN, COFFIN & BLACKMAN 289 South Main Street Martinsville, IN 46151 (765) 342-5506 Fax No.: (765) 349-9545 Attorney
No.: 3591-555 Attorney for Executive hispade.

day 10 - 2013

LEGAL NOTICE Notice is hereby given that the Town of Oolitic, serving as recipient for a CDBG Owner Occupied Rehabilitation grant from the Indiana Housing and Community Davelopment Authority, will receive LETTERS OF INTEREST TO RECEIVE BID PACKETS. The grant will provide funds to complete the rehabilitation of approximately five (5) owner occupied housing units in the corporate limits of Oolitic. All contractors autemitting latters of interest must have a \$1,000,000 liability insurance and workman?'s compensation policy (or state certificate releasing this requirement). Contractors must also have a lead renovator license and also as an EPA Lead-Safe Certified Firm. The lead certificates will be required prior to bid award, which is anticipated to be in July 2013. A notification letter will be sent to contractors an the bidders list only, with the exception of two minority and wamen owned business enterprises. All letters of interest should be addressed to the project subrecipient, Southern Indiana Development Commission. Attr. Jarny Dearwester, P.O. Box 422, Loogootee, IN 47553, Letters of interest are due no later than May 31, 2013, Interested contractors will be placed on an active bidders list until December 30, 2013. THERE WILL BE A MANDATORY PRE-BID MEETING-HELD ON JUNE 5, 2013 AT 1000 A M. AT THE COLLTIC TOWN HALL LOCATED AT 109 MAIN STREET, ANY CONTRACTOR WANTING TO PLACE A BID ON ANY OF THE HOUSING UNITS MUST ATTEND THE MEETING. The Town of Collic reserves the right to reject any and all letters of interest based on funding source disapproval of the contractor. MBE/WBE businesses are encouraged to submit letters of interest. We have a goal of ten percent MBE/WBE participation. For questions, call SIDC at (812) 255-3707 houses.

May 29, 2011

NOTICE OF SHERIFF'S SALE By virtue of a sertified copy of a decree directed to me from the Clerk of the Superior Court of Morgan County, Indiana, in Cause No. 55062-1206-MF-1389, wherein Nationalar Mortgage LLC was the Plaintiff, and State Istephens; FIA Card Services, National Association, CitiBank, N.A., successor by acquisition of CitiBank, FSB; JPMorgan Chase Bank National Association, and First Bank, dibra First Bank Mortgage were the Defendants, requiring me to make the sum as provided for in said Decree with interest and costs. I will expose of public sale to the highest bidder, on July 8, 2013, at the hour of 2:00 p.m. of said day, at 160 North Park Avenue, Martinsville, Indiana, the fee simple of the whole body of Roal Estate in Morgan County, Indiana: A part of the Southwest Quarter of the Northeast quarter of Section 17. Township 13 North, Range 1 East, Morgan County, Indiana, more particularly described as follows, to-wit Commencing at an iron pipe at the Southwest corner of said



Quarter Quarter section, run thence Easterly on the South line of said Quarter Quarter section in the county road for 955.0 feet to in iron spike; deflect left 89 degrees 29 minutes and run thence Northerly generally on and along a line fence for 222.0 feet to an iron pipe at the beginning point of this description for 1.15 scres; deflect right 98 degrees 35 minutes and run thence Southeaste generally on and along a line lence on the North line of a 1.27 acre tract for 262.2 feet to an iron spike in the County Road, deflect isft 96 degrees 23 minutes and run thence Northeasterly in the county road for 57.0 feet to an iron pin: deflect right 5 degrees 22 minutes and run thence Northeasterly in the County Road for 130,5 feet to an iron spike, deflect left 92 degrees 44 minutes and run thence Northeasterly in the County Road for 130,5 feet to an iron spike, deflect left 92 degrees 44 minutes and run thence Northeasterly in the County Road for 130,5 feet to an iron spike, deflect left 92 degrees 44 minutes and run thence Northeasterly in the County Road for 130,5 feet to an iron spike, deflect left 92 degrees 44 minutes and run thence Northeasterly in the County Road for 130,5 feet to an iron spike, deflect left 92 degrees 44 minutes and run thence Northeasterly in the County Road for 130,5 feet to an iron spike, deflect left 92 degrees 44 minutes and run the County Road for 130,5 feet to an iron spike, deflect left 92 degrees 44 minutes and run the County Road for 130,5 feet to an iron spike, deflect left 92 degrees 44 minutes and run the County Road for 130,5 feet to an iron spike, deflect left 92 degrees 44 minutes and run the County Road for 130,5 feet to an iron spike, deflect left 92 degrees 44 minutes and run the County Road for 130,5 feet to an iron spike, deflect left 92 degrees 44 minutes and run the County Road for 130,5 feet to an iron spike, deflect left 92 degrees 44 minutes and run the County Road for 130,5 feet to an iron spike, degree 14 minutes and run the County Road for 130,5 feet to an iron spike, degree 14 minutes and run the County Road for 130,5 feet to an iron spike, degree 14 minutes and run the County Road for 130,5 feet to an iron spike, degree 14 minutes and run the County Road for 130,5 feet to an iron spike, degree 14 minutes and run the County Road for 130,5 feet to an iron spike, degree 14 minutes and run the County Road for 130,5 feet to an iron spike, degree 14 minutes and run the County Road for 130,5 feet to an iron spike, degree 14 minutes and run the County Road for 130,5 feet to an iron spike, degree 14 minutes and run the County Road for 130,5 feet to an iron spike 14 minutes and run the County Road for 130,5 feet to an iro thence Northwesterly generally on and along a line fence for 285.0 feet to a 10-inch corner post that is 185.0 feet north of the beginning point; run thence southerly on and along a line fence for 185.0 feet to the place of beginning, containing 1, 15 acres, m or less. Parool Number: 55-05-17-200-020.000-015 Commonly known as 9525 N. Gasburg Road. Mocresville, Indiana 46155 Together with rents, issues, income and profits thereof, said sale will be made without relief from valuation or appraisement laws. This is an attempt by a debt collector to collect a debt, and any information obtained will be used for that purpose. Robert J. Downey Sheriff of Morgan County Monroe Township 9526 N. Gasburg Road Mocrosville, Indiana 46158 James E. Shinaver NELSON & FRANKENBERGER 3105 East 98th Street, Suite 170 Indianapolis, IN 46260 Attorney for Plaintiff The Sheriffs Department does not warrant the accuracy of the street address published herein. Served by Sheriff, Staci L. Stephens 9528 N. Gasburg Road Mooresville, Indiana 46158 Destol E. Stephens 9528 N. Gasburg Road Mooresville, Indiana 46158 This communication is from a debt collector and is an attempt to collect a debt, any information obtained will be used for that purpose hispaxip

May 25 2011

STATE OF INDIANA SS. COUNTY OF MONROE IN THE MONROE CIRCUIT COURT 53C01 1305 F:U 000121 IN THE MATTER OF THE UNSUPERVISED ADMINISTRATION OF THE ESTATE OF MARTHA K. FLICK, DECEASED, NOTICE OF UNSUPERVISED ADMINISTRATION IN THE MONROE CIRCUIT COURT, MONROE COUNTY, INDIANA In the matter of the Estate of Martha K. Flick, deceased. Notice is hereby given that James C. Parker was, on the 21 day of May, 2013, appointed personal representative of the estate of Martha K. Flick, deceased, who died on the 12th day of May, 2013. All persons who have claims against this estate, whether or not now due, must file the claim in the office of the Clien's of this Court within three (3) months from the he date of the first publication of this notice, or within rine (9) months after the decedent's death, whichever its earlier, or the claims will be forever barred. Dated at Monroe County, Indiana, this 22 day of May, 2013. Linda K. Robbins Clerk, Monroe Circuit Court Donald W. Francis, Jr. #16401-53 Attorney at Law 701 N. Walnut Street Bloomington, IN 47404 812-334-2150 hapas/lp

NOTICE OF ADMINISTRATION In the Circuit Court of Lawrence County, Indiana: In the Matter of the Estate of Lyle E. Reuter, Deceased, ESTATE NO. 47C01-1905-ES-005047 Notice is hereby given that Jack L. Giles was on the 22nd day of May, 2013, appointed Personal Representative of the estate of Lyle E. Reuter. All persons having claims against studie estate, whether or not now due, must file the same in said Court within three (3) months from the date of the first publication of this notice or said claim will be foreiver barred. Dated at Bedford, Indiana this 22nd day of May, 2013, is' Myron Rainey Myron Rainey, Clerk Circuit Court for Lawrence Courtly, Indiana ATTORNEYS: David A. Smith MoIntyre & Smith 1522 "T Street Bedford, IN 47423 Phone, (812) 275-3306 hispace."

May 20: 3041

LEGAL NOTICE OF I-66 TRANSPORTATION CONFORMITY REQUIREMENTS The Federal Highway Administration (FHWA) and Indiana Department of Transportation (INDOT) published a Tier 2 Draft Environmental Impact Statement (DEIS) on October 26 2012 and held public hearing on December 5, 2012 regarding Section 5 of the proposed 1-69 Evansville to Indianapolis project. The termini of Section 5 are SR 37 south of Bloomington in Monroe County and SR 39 south of Maxinsville in Morgan County, Indiana Specifically, the project proposes an upgrade of an existing facility (SR 37) to interstate standards. This DEIS (page 5.9-9) included the following statement regarding Transportation Conformity Requirements as it pertains to air quality, "Since the Morgan County portion of the Section 5 study area is in the nonattainment area for PM2.5, interagency coordination was initiated during a conference call on August 23, 2012 with state and federal agencies involved in the project planning process. The interagency call included an overview of the project and identified additional data needs to support future decisions. During subsequent interagency mostings, a determination will be made if a quantitative PM2.5 analysis is appropriate, along with the methods and procedures to be used for conducting that analysis, if needed. The results will be discussed in the FEIS." On March 10, 2006, EPA published a final rule establishing transportation conformity requirements for analyzing the local particulate matter (PM) air quality impacts of transportation projects (71FR 12468). An interagency consultation process plays an important role in identifying whether a project requires a quantitative PM hot-spot analysis. A hotspot analysis is defined in 40 CFR 93 101 as an estimation of likely future localized pollutant concentrations and a comparison of those concentrations to the relevant National Ambient Air Quality Standard (NAAQS). A hot-spot analysis assesses the air quality impacts on a scale smaller than an entire nonaltainment or mainter area. A portion of the proposed project is located in Morgan County that has been designated as being in nonattainment for fine particulates (PM2.5). Section 83 109(b) of the conformity rule outlines the requirements for project-level conformity determinations A PM2.5 hot-spot analysis is required for projects of local air quality concern, per Section 93.123(b)(1). The need for a quantitative PM2.5 analysis for I-69 Section 5 was discussed by the interagency consultation group (ICG) consisting of US Environmental Protection Agency (USEPA), FHWA, INDOT, Indiana Department of Environmental Management (IDEM), and the Indianapolis Metropolitan Planning Organization, it was noted that the project is located in a PM2.5 nonattainment area with an increase in the number of diesel vehicles expected in future years. The ICG agreed that a project level not-spot analysis would be conducted for i-69 Section 5 although the group did not conclude that the project was a Project of Air Quality Concern. The ICG played an integral role in defining the heed, methodology and assumptions for the analysis. The air quality analysis included modeling techniques to estimate project-specific emission factors from vehicle exhaust and local PM2.5 concentrations due to project operation. Emissions and dispersion modeling techniques were consistent with the EPA quantitative PM hot-spot analysis guidance. "Transpo Conformity Guidance for Quantitative Hot-spot Analysis in PM2.5 and PM10 Nonattainment and Maintenance Areas" (EPA-420-B-10-040). The analysis had demonstrated transportation conformity for the project by determining that future design value ntrations for the 2018 and 2035 analysis year will be lower than the 1997 annual PM2.5 NAAQS of 15.0 g/m. As a result, the project does not create a violation of the 1997 annual PM2.5 NAAQS, worsen an existing violation of the NAAQS, or delay timely attainment of the NAAQS and interim milestones, which meets 40 CRF 93.116 and 93.123 and supports the project level conformity stermination. INDOT is accepting public comment on the Air Quality Technical Report PM2 5 Quantitative Hot-spot Analysis, I-69 Evansville to Indianapolis, Indiana: Section 5 Bioomington to Martinsville. The report is available for review and download from http://www.i69indyevn.org/section-5/ Please reply no later than Friday, June 14, 2013 to Mary Jo Hareman, 3925 River Crossing arkway. Suite 150, Indianapolis, IN 46240 or email comments to mhamman@mbakercorp.com. In accordance with the "Americans with Disabilities Act", if you have a disability for which the Indiana Department of Transportation would need to provide existions pertaining to accessibility to project documents, please contact Rickie Clark, INDOT Office of Public Involve at (317) 232-6801 relark@indot.in.gov. Also, persons of Limited English Proficiency (LEP) requiring as sistance pertaining to accessing project documents may contact INDOT's Office of Public Involvement. This notice is published in compliance with Code of Federal Regulations. Title 23. Section 771 (CFR 771, 111 (h) (1) states." Each state must have procedures approved by the FHWA to carry dut a public involvement/public hearing program \* 23 CFR 450.212 (a)(7) states: "Public involvement procedures shall provide for periodic review of the effectiveness of the public involvement process to ensure that the process provides full and open access to all and revision of the process necessary" approved by the FHWA, U.S. Department of Transportation on August 16, 2012. INDIANA DEPARTMENT OF TRANSPORTATION hispaxic

MAY 25 20 --

The Lawrence County Emergency Management Advisory Council has been rescheduled for Tuesday, June 4, 2013 at 9 a.m. following the Solid Waste Meeting. The meeting will be held in the Commissioner's Room located at the Lawrence County Courthouse



LEGAL NOTICE OF I-69 TRANSPORTATION CONFORMITY REQUIREMENTS The Federal Highway Administration (FHWA) and Indiana Department of Transportation (INDOT) published a Tier 2 Draft Environmental Impact Statement (DEIS) on October 26, 2012 and held public hearing on December 6, 2012 regarding Section 5 of the proposed I-69 Evansville to Indianapolis project. The termini of Section 5 are SR 37 south of Bloomington in Monroe County and SR 39 south of Martinsville in Morgan County, Indiana. Specifically, the project proposes an upgrade of an existing facility (SR 37) to interstate standards. The DEIS (page 5.9-9) included the following statement regarding Transportation Conformity Requirements as it pertains to air quality, "Since the Morgan County portion of the Section 5 study area is in the nonattainment area for PM2.5, interagency coordination was initiated during a conference call on August 23, 2012 with state and federal agencies involved in the project planning process. The interagency call included an overview of the project and identified additional data needs to support future decisions. During subsequent interagency meetings, a determination will be made if a quantitative PM2.5 analysis is appropriate, along with the methods and procedures to be used for conducting that analysis, if needed. The results will be discussed in the FEIS." On March 10, 2006, EPA published a final rule establishing transportation conformity requirements for analyzing the local particulate matter (PM) air quality impacts of transportation projects (71FR 12468). An interagency consultation process plays an important role in identifying whether a project requires a quantitative PM hot-spot analysis. A hotspot analysis is defined in 40 CFR 93.101 as an estimation of likely future localized pollutant concentrations and a comparison of those concentrations to the relevant National Ambient Air Quality Standards (NAAQS). A hot-spot analysis assesses the air quality impacts on a scale smaller than an entire nonattainment or maintenance area. A portion of the proposed project is located in Morgan County that has been designated as being in nonattainment for fine particulates (PM2.5). Section 93.109(b) of the conformity rule outlines the requirements for project-level conformity determinations. A PM2.5 hot-spot analysis is required for projects of local air quality concern, per Section 93.123(b)(1). The need for a quantitative PM2.5 analysis for I-69 Section 5 was discussed by the interagency consultation group (ICG) consisting of US Environmental Protection Agency (USEPA), FHWA, INDOT,

Indiana Department of Environmental Management (IDEM), and the Indianapolis Metropolitan Planning Organization. It was noted that the project is located in a PM2.5 nonattainment area with an increase in the number of diesel vehicles expected in future years. The ICG agreed that a project level hot-spot analysis would be conducted for I-69 Section 5 although the group did not conclude that the project was a Project of Air Quality Concern. The ICG played an integral role in defining the need, methodology and assumptions for the analysis. The air quality analysis included modeling techniques to estimate project-specific emission factors from vehicle exhaust and local PM2.5 concentrations due to project operation. Emissions and dispersion modeling techniques were consistent with the EPA quantitative PM hot-spot analysis guidance, "Transportation Conformity Guidance for Quantitative Hot-spot Analysis in PM2.5 and PM10 Nonattainment and Maintenance Areas" (EPA-420-B-10-040). The analysis had demonstrated transportation conformity for the project by determining that future design value concentrations for the 2018 and 2035 analysis year will be lower than the 1997 annual PM2.5 NAAQS of 15.0 µg/m³. As a result, the project does not create a violation of the 1997 annual PM2.5 NAAQS, worsen an existing violation of the NAAQS, or delay timely attainment of the NAAQS and interim milestones, which meets 40 CRF 93.116 and 93.123 and supports the project level conformity determination. INDOT is accepting public comment on the Air Quality Technical Report PM2.5 Quantitative Hot-spot Analysis, I-69 Evansville to Indianapolis, Indiana: Section 5 Bloomington to Martinsville. The report is available for review and download from: /http://www.i69indyevn.org/section-5/. Please reply no later than Friday, June 14, 2013 to Mary Jo Hamman, 3925 River Crossing Parkway, Suite 150, Indianapolis, IN 46240 or email comments to mhamman@mbakercorp.com. In accordance with the "Americans with Disabilities Act", if you have a disability for which the Indiana Department of Transportation would need to provide accommodations pertaining to accessibility to project documents, please contact Rickie Clark, INDOT Office of Public Involvement at (317) 232-6601 rclark@indot.in.gov. Also, persons of Limited English Proficiency (LEP) requiring assistance pertaining to accessing project documents may contact INDOT's Office of Public Involvement. This notice is published in compliance with Code of Federal Regulations, Title 23, Section 771 (CFR 771.111 (h) (1) states: "Each state must have procedures approved by the FHWA to carry out a public involvement/public hearing program." 23 CFR 450.212 (a)(7) states: "Public involvement procedures shall provide for periodic review of the effectiveness of the public involvement process to ensure that the process provides full and open

access to all and revision of the process necessary" approved by the FHWA, U.S. Department of Transportation on August 16, 2012. INDIANA DEPARTMENT OF TRANSPORTATION (S - 5/30/13, 6/4/13 - 6069712)

General Form No. 99P (Rev. 2009A) Federal ID# 35-2061385

IND DEPT OF TRANSPORTATION	To: INDIANAPOLIS NEWSPAPERS
93.123(b)(1). The need for a quantitative PM2.5 analysis for 759 Section 5 was dis-	307 N PENNSYLVANIA ST - PO BOX 145
MARION COINTY group (ICG) consisting of US Environmental	INDIANAPOLIS, IN 46206-0145
indiana Department of Environmental Man-	I THE THE CEAS, IT TO DOO OF TO
politan Planning Organization. It was noted	
Lainment area with an increase in the num-	AIM
years. The ICG agreed that a project level	
Section 5 although the group did not con-	
LINE COUNT Quality Concern. The icG played an integral	
LEGAL NOTICE OF 1-59 TRANSPORTATION (IV assumptions for the analysis. The air quality analysis included modeling techniques to establish the conference of t	ther of which shall
timate project specific emission factors from the Federal Highway Administration (FHWA) 181 vehicle exhaust and local PM2.5 concentra-	h the body of the
INDOT) published a Tier 2 Draft Environmen- nt dispersion modeling techniques were consis-	
2012 and held public hearing on December 6, if I analysis guidance, "Transportation Confor-	
Evansyllie to Indianapolis project. The ter- f   Analysis in PM2.5 and PM10 Nonattainment	
ngton in Monroe County and SR 39 south of III The analysis had demonstrated transporta-	The state of the s
COMPORANTY BEQUIREMENTS  The Federal Highway Administration (FHWA) lall wethicle exhaust and local PM2.5 concentration (INDOT) published a Tier 2 Draft Environment (INDOT) published a Tier 2 Draft Envi	
fards.  The DEIS (page 5.9-9) included the following15.0 µg/m². As a result, the project does not	
statement regarding Transportation Confor- mity Requirements as it pertains to air qual- MAAQS, worsen an existing violation of the	
Section 5 study area is in the nonattainment C NAAOS and interim milestones, which meets	
MARION COUNTY  MARION	nt lines at <u>.731</u>
nvolved in the project planning process. The le Air Quality Technical Report PM2.5 Quantita-	\$ <u>204.56</u>
project and identified additional data needs e anapolis, Indiana: Section 5 Bloomington to support future decisions. During subsection Martinsville, The report is available for re-	e work (50 per cent
quent interagency meetings, a determina- tion will be made if a quantitative PM2.5 IOI dyevn.org/section-5/. Please reply no later	
analysis is appropriate, along with the meth- ods and procedures to be used for conduct-   D man, 3925 River Crossing Parkway, Suite 150,	proof in excess of two)00
was initiated during a conference call on Au ) or project lewel conformity determination by sust 22, 2012 with state and federal agencies involved in the project planning process. In IDOT is accepting public comment on the interagency call included an overview of the project and identified additional data never the hot project and identified and interactional data never the hot project and identified and interactional data never the hot project and identified and interactional data never the hot project and identified additional data never the hot project and identified addit	\$
on March 10, 2006, EPA published a final rule establishing transportation conformity re- abilities Act", if you have a disability for	
ate matter (PM) air quality impacts of trans- T tion would need to provide accommodations	
nteragency consultation process plays an of ments, please contact fickle Clark, INDOT	
ect requires a quantitative PM hot-spot 10 6601 relark@indot.in.gov. Also, persons of analysis. A hotspot analysis is defined in 40 10 Limited English Profeseroy (LEP) requiring	
CFR 93.101 as an estimation of likely future assistance pertaining to accessing project documents may contact INDOT's Office of	
on March 10, 2006, EPA published a final rule establishing transportation conformity in accordance with the "Americans with Disability for analyzing the local particulate matter (PM) all quality impacts of trans permanents for analyzing the local particulate matter (PM) all quality impacts of transportation of the proposed project is consistent or of likely nature and program of those concentrations to the proposed project is comparison of those concentrations to the particular of the proposed project is consistent or professional project of the proposed project is consistent or professional project of the proposed project is located in Morgan County that has been designated as being in nonattainment for marticulates (PMX.5). Section 93.109(b) of the comparison of the proposed project is located in Morgan County that has been designated as being in nonattainment for marticulates (PMX.5). Section 93.109(b) of the comparison of the proposed project is required for project of the proposed project is required for project of the p	
the air quality impacts on a scale smaller ro 771 (CFR 771.111 (h) (1) states: " Each state	1, I hereby certify that the foregoing account is
nance area.  A portion of the proposed project is located in the procedures approved by the	allowing all just credits, and that no part of the same
m Morgan County that has been designated states: "Public Involvement procedures shall as being in popular interesting the particular provide for particular provides	
ates (PM2.5). Section 93:109(b) of the con- formity rule outlines the requirements for sure that the process provides full and open	
project level conformity determinations. A II access to all and revision of the process nec- PM2.5 hot apol analysis is required for pro- cssary" approved by the FHWA, U.S. Depart-	true copy, of the same column width and type size,
WILCH WAS GULLY PUBLISH INDIANA DEPARTMENT OF TRANSPORTATION	of publication being between the dates of:
(S - 5/30/13, 6/4/13 - 6069712)	
05/30/2013 and 06/04/2013	
Additionally, the statement checked below is true and corre	ct;
Newspaper does not have a Web site.	
Newspaper has a Web site and this public notice was p	osted on the same day as it was published in
the newspaper	
Newspaper has a Web site, but due to a technical probl	
Newspaper has a Web site but refuses to post the publi	c notice.
	N
	Kons, Worker -
	Thory was
DATE: 06/04/2013	Title: Clerk
DATE: 00/04/2013	THIS. CIGIK

Copple, Estella M., 89 Frank
Arkanoff, Harry E.

Frank
Arkanoff, Harry E.

Brune
The indianopolis Star publishes is referenced to remunerate can be basic including the deer sted's name, withdrawn dearlies or it can be as a septement of the configuration of the

General Form No. 99P (Rev. 2009A) Federal ID# 35-2061385

Essex, Delorma M., 89

Copple, Estella M., 89

Copple, Estella M., 89

Copple, Estella M., 89

Copple, Estella M., 89

To: INDIANAPOLIS NEWSPAPERS 307 N PENNSYLVANIA ST - PO BOX 145 INDIANAPOLIS, IN 46206-0145

PUBLISHER'S	SCLAIM			
LINE COUNT				
Display Matter - (Must not exceed two actual lines, neither of which shall total more than four solid lines of the type in which the body of the advertisement is set) number of equivalent lines				
Head - Number of lines				
Body - Number of lines				
Tail - Number of lines				
Total number of lines in notice				
COMPUTATION OF CHARGES				
140.0 lines 2.0 columns wide equals 280.0 equ	rivalent lines at .731			
cents per line		\$ 204.56		
Additional charge for notices containing rule and	figure work (50 per cent			
of above amount)				
Charges for extra proofs of publication (\$1.00 for each proof in excess of two)				
DATA FOR COMPUTING COST				
Width of single column 5.8 ems Size of type 7				
Number of insertions 2,0	_			
just and correct, that the amount claimed is legally due, after allowing all just credits, and that no part of the same has been paid.  I also certify that the printed matter attached hereto is a true copy, of the same column width and type size, which was duly published in said paper 2 times. The dates of publication being between the dates of:				
05/30/2013 and 06/04/2013				
Additionally, the statement checked below is true and of	correct:			
Newspaper does not have a Web site.  Newspaper has a Web site and this public notice was posted on the same day as it was published in the newspaper				
Newspaper has a Web site, but due to a technical p Newspaper has a Web site but refuses to post the p		vas posted on		
	Korry Bods	3		

		Transportation Conformity Requirements as it pertains to air quality, "Since the Morgan County portion of the Section 5 study area is in the nonattainment area for PM2.5, interagency coordination was initiated during a conference call on August 23, 2012 with slate and federal agencies involved in the project planning process. The interagency call included an overview of the project and identified additional data needs to support future decisions. During subsequent interagency meetings, a determination will be made if a quantitative PM2.5 analysis is approprinte, along with the methods	the need, methodo: y and as- sumptions for the alysis. The alr quality analysis i uded mod- ellag techniques estimate project-specific emission factors from vehicle exhaust and local PM2.6 concentrations due to proj- ect operation. Emissions and dis- persion modeling techniques were	sure that the process provides full and open access to all and revision of the process necessary approved by the FHWA, U.S. Department of Transportation on August 10, 2012.  INDIANA DEPARTMENT OF TRANSPORTATION hspazip	
	Prescribed By State Board of Legal Notice of I-69 Tra	the project planning process. The interagency call included an over- view of the project and identified additional data needs to support	PM2.6 concentrations due to project operation. Emissions and dispersion modeling techniques were consistent with the EFA quantitative PM hot-spot analysis guidance, "Transportation Conformity Guidance for Quantitative Hot-spot Analysis in PM2.5 and		
	IND DEPT TI	future decisions. During subse- quent interagency meetings, a de- termination will be made if a	PM10 Nonattainment and Mainte- nance Areas" (EPA 430 B-10-040). The analysis had demonstrated	Martinaville Reporter Times	
	(Gover	quantitative PM2,6 analysis is ap- propriate, along with the methods and procedures to be used for con-	The analysis had demonstrated transportation conformity for the project by determining that future		
	Morgan (	The results will be discussed in	transportation conformity for the project by determining that future design value concentrations for the 2018 and 2035 analysis year	PO Box 1636 Martinsville, IN 46151	
		On March 10, 2006, EPA pub- lished a final rule establishing	page 5 NAAOS of 150 ug/m <sup>3</sup> . As a		
	LINE COUNT Display Matter (Mus	transportation conformity require- ments for analyzing the local par- ticulate matter (PM) air quality impacts of transportation projects (7FR 12468). An interagency	result, the project does not create a violation of the 1997 annual PM2.5 NAAQS, worsen an exist- ing violation of the NAAQS, or de-		
	total more that	impacts of transportation projects (71FR 12468). An interagency	ing violation of the NAAQS, or de- lay timely attainment of the NAAQS and interim milestones, which meets 40 CRF 93.116 and 93.123 and supports the project level conformity determination. INDOT is accepting public com- ment on the Air Quality Technical Report PM2.5 Quantitative Hot-spot Analysis 1.69 Evansville		
	advertisement	consultation process plays an arrange	93.123 and supports the project level conformity determination.		
	Body - number of lin	portant role in Identifying whether a project requires a quantilative PM hot-spot analysis. A hotspot analysis is defined in 40 CFR 93,101 as an estimation of likely future localized pollutant concen-	INDOT is accepting public com- ment on the Air Quality Technical		
	Tail - number of line	93.101 as an estimation of likely future localized pollutant concen-	to to the countie Indianas Capitan &		
	Total number	consentrations to the volcount Na.	Bloomington to Martinsville. The report is available for review and download from: http://www.	179	
		tional Ambient Air Quality Stand- ards (NAAQS). A hot-spot analysis assesses the air quality impacts on	160indvevn.org/section-b/. Please		
	COMPUTATION OF C	a scale smaller than an entire non-	reply no later than Friday, June 14, 2013 to Mary Jo Hamman,		
	179 lines 1 column(s	A portion of the proposed project is located in Morgan County that I has been designated as being in	3925 River Crossing Parkway, Suite 150, Indianapolis, IN 46240 or email comments to	\$ 102.75	
	Additional Charges f	nonattainment for fine particu- lates (PM2.5). Section IXI.105(b) of	mhamman@mbakercorp.com. in accordance with the "Americans with Disabilities Act",		
	of above amou	the conformity rule outlines the requirements for project-level con-	"Americans with Disabilities Act", if you have a disability for which		
	Charge for extra pro	formity determinations. A PM2.5 hot-spot analysis is required for	if you have a disability for which the Indiana Department of Trans- portation would need to provide accommodations pertaining to ac-	****************	
7	LEGAL NOTICE OF 1-89	has been designated as being in- nonattainment for fine particut- lates (PM2.5). Section 93.100(b) of g the conformity rule outlines the requirements for project-level con- formity determinations. A PM2.5 hot-spot analysis is required for projects of local air quality con- cern, per Section 93.123(b)(1). The need for a quantitative PM2.5 analysis for 1-69 Section 5 was dis- cussed by the interagency consul-	cessibility to project documents, please contact Ricide Clark, INDOT Office of Public Involve-		
0	TRANSPORTATION NFORMITY REQUIREMENTS	analysis for 1-69 Section 6 was dis- cussed by the interagency consul-	INDOT Office of Public Involve- ment at (317) 232-0601	*********	
in in	Federal Highway Administra- (FHWA) and Indians Depart- t of Transportation (INDOT) Ished a Tier 2 Draft Environ-	cussed by the interagency consul- tation group (ICG) consisting of US Environmental Protection	of Limited English Proficiency		
		Agency (USEPA), FHWA, INDOT, Indiana Department of Environ- mental Management (IDEM), and the Indianapolis Metropolitan	INDOT Office of Public Involve- ment at (317) 232-6601 relark@indot.ht.gov. Also, persons of Limited English Proficiency (LEP) requiring assistance per- taining to accessing project docu- ments may contact INDOT's Of- fice of Public Involvement.		
1	October 26, 2012 and held pub-	the Indianapolis Metropolitan Planning Organization. It was	fice of Public Involvement. This notice is published in compli-		
gi	riding Section 6 of the pro- ed 1-60 Evansville to Indianap- project. The termini of Sec- 5 are SR 37 south of Bloom- ary SR 37 south of Bloom-	Planning Organization. It was noted that the project is located in a PM2.5 nonattainment area with	tions, Title 23, Section 771 (CFR	foregoing account is	
m	5 are SR 37 south of Bloom-	an increase in the number of die- sel vehicles expected in future years. The ICG agreed that a proj-	must have procedures approved by	foregoing account is ys, and that no part of	
331	on in Monroe County and SR outh of Martinsville in Morgan nty, Indiana. Specifically, the	be conducted for 1-60 Section 5 al-	involvement/public hearing pro- gram," 23 CFR 450,212 (a)(7)	5	
O.di	ect proposes an upgrade of an ting facility (SR 37) to inter- e standards.	that the project was a Project of	dures shall provide for periodic re	blumn width and type size,	
10	DEIS (page 5.9-9) included following statement regarding	Air Quality Concern. The ICG played an integral role in defining	public involvement process to en	e Dilows:	
	05/30/13.06/04/				
					******
	Additionally, the state	ement checked below is true a	and correct:		
		er does not have a Web site.		,	
	the news		lic notice was posted on the s	same day as it was published in	
			echnical problem or error, put	olic notice was posted on	
		has a Web site but refuses to	post the public notice.	DO 150	
	Date 6- 6	1-13	TILL	Public Nation Clark	
	Date/		Title	e Public Notice Clerk	

Vebrant mg 00:h Vebria mg 00:h Vebri	ire that the process provides full ad open access to all and revision of the process necessary approved by the FHWA, U.S. Department of anapportation on August 16, 1012.  NOTICE TRANSPORTATION hspaxin
Prescribed By State Board Pepsent ud 00:4 Appsint Legal Notice of I-69 Transportation Conformity Requirements	
IND DEPT TRANSPORTATION	TO: Martinsville Reporter Times
(Governmental Unit)	
Morgan County, Indiana	PO Box 1636 Martinsville, IN 46151
PUBLISHER	'S CLAIM
LINE COUNT	nt.
Display Matter (Must not exceed 2 actual lines, neither of which sha total more than four solid lines of the type in which the body o	
advertisement is set) - number of equivalent lines	
Head - number of lines	
Body - number of lines	
Tail - number of lines	179
Total number of lines in notice:	
COMPUTATION OF CHARGES:  179 lines 1 column(s) wide equals 179 equivalent lines at  .574 cents per line	\$ 102.75  point.  certify that the foregoing account is all just credits, and that no part of of the same column width and type size, ion being as follows:
05/30/13, 06/04/13	
Additionally, the statement checked below is true and correct:	
Newspaper does not have a Web site. Newspaper has a Web site and this public notice was potential the newspaper.	ested on the same day as it was published in
Newspaper has a Web site, but due to technical problenNewpaper has a Web site but refuses to post the public	
Date 6-4-13	Title Public Notice Clerk

Page 1 of 1

### **INDIANA DEPARTMENT OF TRANSPORTATION**



Driving Indiana's Economic Growth

**Legal Notice** 

#### LEGAL NOTICE OF 1-69 TRANSPORTATION CONFORMITY REQUIREMENTS

The Federal Highway Administration (FHWA) and Indiana Department of Transportation (INDOT) published a Tier 2 Draft Environmental Impact Statement (DEIS) on October 26, 2012 and held public hearing on December 6, 2012 regarding Section 5 of the proposed I-69 Evansville to Indianapolis project. The termini of Section 5 are SR 37 south of Bloomington in Monroe County and SR 39 south of Martinsville in Morgan County, Indiana. Specifically, the project proposes an upgrade of an existing facility (SR 37) to interstate standards.

The DEIS (page 5.9-9) included the following statement regarding Transportation Conformity Requirements as it pertains to air quality, "Since the Morgan County portion of the Section 5 study area is in the nonattainment area for PM2.5, interagency coordination was initiated during a conference call on August 23, 2012 with state and federal agencies involved in the project planning process. The interagency call included an overview of the project and identified additional data needs to support future decisions. During subsequent interagency meetings, a determination will be made if a quantitative PM2.5 analysis is appropriate, along with the methods and procedures to be used for conducting that analysis, if needed. The results will be discussed in the FEIS."

On March 10, 2006, EPA published a final rule establishing transportation conformity requirements for analyzing the local particulate matter (PM) air quality impacts of transportation projects (71FR 12468). An interagency consultation process plays an important role in identifying whether a project requires a quantitative PM hot-spot analysis. A hotspot analysis is defined in 40 CFR 93.101 as an estimation of likely future localized pollutant concentrations and a comparison of those concentrations to the relevant National Ambient Air Quality Standards (NAAQS). A hot-spot analysis assesses the air quality impacts on a scale smaller than an entire nonattainment or maintenance area.

A portion of the proposed project is located in Morgan County that has been designated as being in nonattainment for fine particulates (PM2.5). Section 93.109(b) of the conformity rule outlines the requirements for project-level conformity determinations. A PM2.5 hot-spot analysis is required for projects of local air quality concern, per Section 93.123(b)(1). The need for a quantitative PM2.5 analysis for I-69 Section 5 was discussed by the interagency consultation group (ICG) consisting of US Environmental Protection Agency (USEPA), FHWA, INDOT, Indiana Department of Environmental Management (IDEM), and the Indianapolis Metropolitan Planning Organization. It was noted that the project is located in a PM2.5 nonattainment area with an increase in the number of diesel vehicles expected in future years. The ICG agreed that a project level hot-spot analysis would be conducted for I-69 Section 5 although the group did not conclude that the project was a Project of Air Quality Concern. The ICG played an integral role in defining the need, methodology and assumptions for the analysis. The air quality analysis included modeling techniques to estimate project-specific emission factors from vehicle exhaust and local PM2.5 concentrations due to project operation. Emissions and dispersion modeling techniques were consistent with the EPA quantitative PM hot-spot analysis guidance, "Transportation Conformity Guidance for Quantitative Hot-spot Analysis in PM2.5 and PM10 Nonattainment and Maintenance Areas" (EPA-420-B-10-040).

The analysis had demonstrated transportation conformity for the project by determining that future design value concentrations for the 2018 and 2035 analysis year will be lower than the 1997 annual PM<sub>2.5</sub> NAAQS of 15.0

μg/m³. As a result, the project does not create a violation of the 1997 annual PM<sub>2.5</sub> NAAQS, worsen an existing violation of the NAAQS, or delay timely attainment of the NAAQS and interim milestones, which meets 40 CRF 93.116 and 93.123 and supports the project level conformity determination.

INDOT is accepting public comment on the Air Quality Technical Report PM2.5 Quantitative Hot-spot Analysis, I-69 Evansville to Indianapolis, Indiana: Section 5 Bloomington to Martinsville. The report is available for review and download from: http://www.ioundownromesection.57 Please reply no later than Iriday, June 14, 2013 to Mary Jo Hamman, 3925 River Crossing Parkway, Suite 150, Indianapolis, IN 46240 or email comments to mhamman@mbakercorp.com.

In accordance with the "Americans with Disabilities Act", if you have a disability for which the Indiana Department of Transportation would need to provide accommodations pertaining to accessibility to project documents, please contact Rickie Clark, INDOT Office of Public Involvement at (317) 232-6601 <a href="mailto:rclark@indot.in.gov">rclark@indot.in.gov</a>. Also, persons of Limited English Proficiency (LEP) requiring assistance pertaining to accessing project documents may contact INDOT's Office of Public Involvement.

This notice is published in compliance with Code of Federal Regulations, Title 23, Section 771 (CFR 771.111 (h) (1) states: "Each state must have procedures approved by the FHWA to carry out a public involvement/public hearing program." 23 CFR 450.212 (a)(7) states: "Public involvement procedures shall provide for periodic review of the effectiveness of the public involvement process to ensure that the process provides full and open access to all and revision of the process necessary" approved by the FHWA, U.S. Department of Transportation on August 16, 2012.

INDIANA DEPARTMENT OF TRANSPORTATION